United States
Department of
Agriculture

Natural
Resources
Conservation
Service

In cooperation with
Fulton County Soil and
Water Conservation
District and Cornell
University Agricultural
Experiment Station

Soil Survey of Fulton County, New York

How To Use This Soil Survey

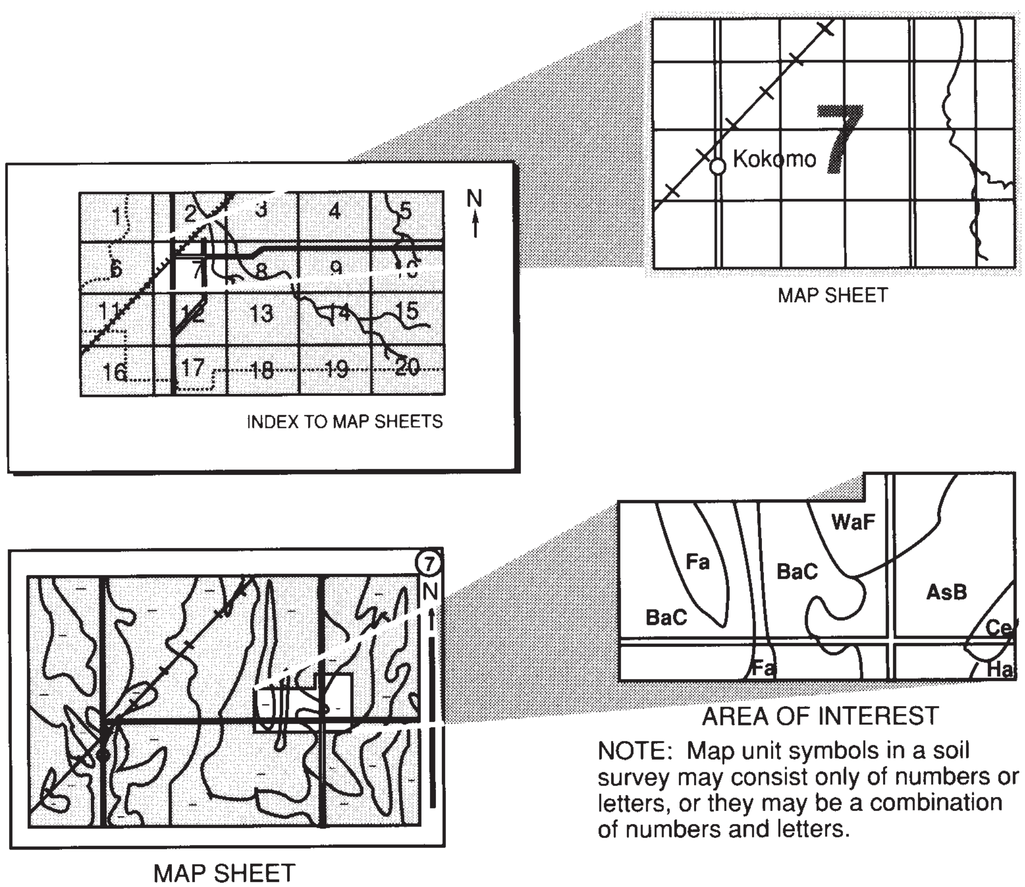
Detailed Soil Maps

The detailed soil maps can be useful in planning the use and management of small areas.

To find information about your area of interest, locate that area on the **Index to Map Sheets**. Note the number of the map sheet and turn to that sheet.

Locate your area of interest on the map sheet. Note the map unit symbols that are in that area. Turn to the **Contents**, which lists the map units by symbol and name and shows the page where each map unit is described.

The **Contents** shows which table has data on a specific land use for each detailed soil map unit. Also see the **Contents** for sections of this publication that may address your specific needs.



National Cooperative Soil Survey

This soil survey is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (formerly the Soil Conservation Service) has leadership for the Federal part of the National Cooperative Soil Survey.

Major fieldwork for this soil survey was completed in July 2004. Soil names and descriptions were approved in March 2007. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 2004. This survey was made cooperatively by the Natural Resources Conservation Service, the Cornell University Agricultural Experiment Station, and the Fulton County Soil and Water Conservation District. The survey is part of the technical assistance furnished to the Fulton County Soil and Water Conservation District.

Soil maps in this survey may be copied without permission. Enlargement of these maps, however, could cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale.

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Citation

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Cover Caption

Lansing loam, map units 42B and 42C are excellent soils for growing crops. However, under cultivation, these long slopes are subject to erosion by surface water. Stripcropping helps to reduce soil erosion. In the background, the southern edge of the Adirondack Mountains is comprised of Becket, Tunbridge, and Lyman soils.

Photo taken by Harold Wheeler, Conservation Education Coordinator, Fulton County Soil and Water Conservation District.

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Issued 2012

Foreword

Soil surveys contain information that affects land use planning in survey areas. They include predictions of soil behavior for selected land uses. The surveys highlight soil limitations, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

Soil surveys are designed for many different users. Farmers, ranchers, foresters, and agronomists can use the surveys to evaluate the potential of the soil and the management needed for maximum food and fiber production. Planners, community officials, engineers, developers, builders, and home buyers can use the surveys to plan land use, select sites for construction, and identify special practices needed to ensure proper performance. Conservationists, teachers, students, and specialists in recreation, wildlife management, waste disposal, and pollution control can use the surveys to help them understand, protect, and enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. The information in this report is intended to identify soil properties that are used in making various land use or land treatment decisions. Statements made in this report are intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://soils.usda.gov/sqi/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (http://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://soils.usda.gov/contact/state_offices/).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

These and many other soil properties that affect land use are described in this soil survey. The location of each map unit is shown on the detailed soil maps. Each soil in the survey area is described, and information on specific uses is given. Help in using this publication and additional information are available at the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

Donald Pettit
State Conservationist
Natural Resources Conservation Service

Additional information about the Nation's natural resources is available online from the Natural Resources Conservation Service at http://www.nrcs.usda.gov.

Soil Survey of
Fulton County, New York

By Theodore D. Trevail, MLRA Soil Scientist, Natural Resources Conservation Service

Fieldwork by Mark Silverman, Soil Survey Project Leader; Val Krawiecki, Stephen Page, Gerald Smith, and Theodore Trevail

United States Department of Agriculture, Natural Resources Conservation Service, in cooperation with Fulton County Soil and Water Conservation District and Cornell University Agricultural Experiment Station

Introduction

The Introduction and the History and Development sections were written by Robert Ambrosino, District Manager of the Fulton County Soil and Water Conservation District.

Fulton County is 45 miles northwest of Albany, the capitol of New York State (fig. 1). It is west of Saratoga County where the world famous Saratoga race track is located. Fulton County is north of Montgomery County and 8 miles from the New York State Thruway and the Mohawk River. It is also east of Herkimer County and south of Hamilton County. Fulton County has been referred to as the "Gateway to the Adirondack Mountains." The top two thirds of the county are in the Adirondack Park and forms part of the southern boundary of its six million acre area. State Highway 30 is a main travel corridor and extends all the way to the Canadian border. Fulton County has a population of 55,000 people, and 80 percent of the residents live in the southern third of the county. This county has two cities, Gloversville and Johnstown, and four incorporated villages.

The county has an abundance of natural resources making it a "recreational paradise." There are over sixty natural lakes and ponds, and hundreds of miles of large and small streams for fishing, camping, hiking, canoeing and sight-seeing. Part of these Fulton County waterways flows into the Great Sacandaga Lake. It is New York's largest man-made reservoir with a length of 28 miles long and up to five miles wide. Sacandaga Lake still holds the record of the world's largest northern pike.

The elevation ranges from 600 feet on the southern border to over 2,600 feet northwest of Shaker Mountain, in the town of Bleecker. With an average of over 75 inches of snow each winter, visitors participate in downhill and cross country skiing, snow machine riding, snowshoeing and other winter activities. With about 60 percent of the county being in the Adirondack Park, deer, bear, turkey, hare, and other small game hunting is very popular. In the southern one-third of the county generally below 1,000 feet elevation, there are more than 70 small farms including dairy, beef, sheep, horse, apple, Christmas tree and scattered truck-crop farms. Because of commercial and residential development in the southeastern part of the county, farming is experiencing economic pressure and competition for resources. Ten or more Amish families have recently moved into the agricultural areas of Oppenheim and Ephratah. There are 28 permitted sand and gravel pits in the county making mining and construction activities profitable and economically feasible overall.

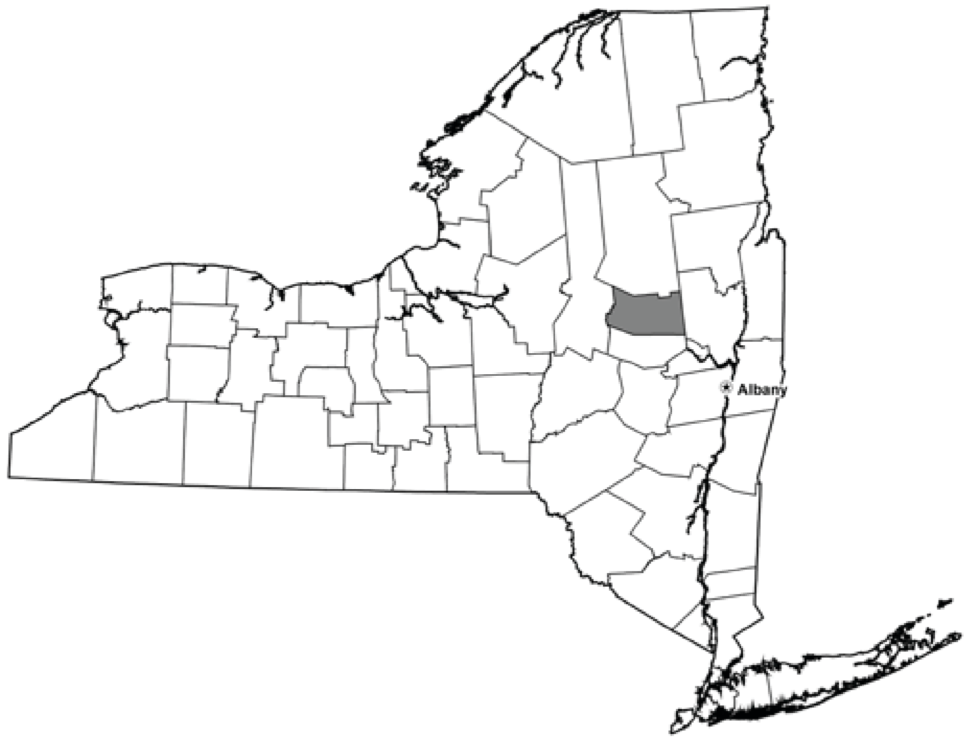

Figure 1.—Location of Fulton County in New York.

General Nature of the County

This section provides general information about the history and development, geology, and the climate of the survey area.

History and Development

Fulton County is rich in history, culture, natural resources, topographic diversity and is becoming well known for its endless recreational opportunities. In the late 1600s, Fulton County was part of Albany County which included most of northern New York and Vermont. In 1772, Albany County was split into three parts and renamed Tryon County, after the colonial governor William Tryon. With most of the loyalist fleeing to Canada at the end of the Revolutionary War and much resentment for Tryon, the county was renamed for the American General Richard Montgomery. Between 1789 and 1816 Montgomery County was divided several more times until 1838, when Fulton County was established. It was named after Robert Fulton, an inventor of the steamboat. Fulton County was also the birthplace and home of several well known settlers, pioneers, and frontier celebrities like Sir William Johnson. Consequently, Johnson Hall, the City of Johnstown and the 200 year-old Fulton County Court House are all memorials in this historic area. A few more notable people are revolutionary charter Nick Stoner; woman suffrage pioneer Elizabeth Cady Stanton; and Dr. Mahlon Loomis who is credited as an early wireless telegraph system inventor. Due to availability of water and hemlock trees and the direct influence of Sir William Johnson, the tanning industry was born. The leather tanning and glove industry thrived for over two hundred years making Johnstown and Gloversville "the leather and glove capital of the world." Eventually, the combined effects of cheaper overseas labor and domestic environmental restraints greatly reduced the once-

booming leather economy of this proud and independent area. Current economic development, industrial park activity and on-going tourism efforts are bringing renewed life to this historically thriving area.

Physiography, Relief, and Drainage

This section was written by Rudy Chlanda, Geologist USDA, NRCS, Amherst, Massachusetts

This survey area is located in portions of two major physiographic provinces; the Adirondack Province to the north and the Mohawk Lowland section of the Appalachian Plateau Province in the south. The Mohawk Lowland is restricted to the southernmost part of the survey area. This section consists of a mature dissected glaciated plateau (Fenneman, N. M., 1938).

Most of the county is located in the Adirondack Province. Approximately two-thirds of the county is located within the boundary of the New York Adirondack Forest Preserve.

The Adirondack Mountains are a physiographic province of the greater Appalachian physiographic division (Denny, 1982). They are not a true mountain range; rather they are reflective of Cenozoic age (10-20 million years ago) doming of a southern extension of Proterozoic (1 billion years ago) Grenville Basement rock. The mountains consist of metamorphic rocks, mainly granitic gneiss, surrounding a central core of intrusive igneous anorthosite.

Elevations within the county range from 600 feet mean sea level north of the Mohawk River in the Appalachian plateau portion to a high point of 2,680 feet northwest of Shaker Mountain in the town of Bleecker. This southern portion of the Adirondack Province consists of rolling mountains which rise gradually toward the northern part of the survey area to elevations of almost 2,700 feet.

Topography of the area reflects the variable erodibility of the rocks, due to their orientation, faulting, and jointing, combined with crustal uplift. Over the last 10-20 million years this uplift resulted in tilting of the sedimentary rocks surrounding the dome, resulting in a radial drainage pattern.

The survey area receives between approximately 30-50 inches of annual precipitation. The runoff flows through and out of the study area by means of East Canada, Caroga, Cayadutta, Chuctanunda, Kennyetto, and other smaller creeks. These creeks are tributary to the Mohawk River which ultimately drains eastward into the Hudson River at Cohoes.

The northeastern portion of the county is drained by tributaries to the Great Sacandaga Lake and thence through its outlet directly to the Hudson River at the Town of Lake Luzerne.

Precipitation is also stored in several water bodies. The largest is the Great Sacandaga Lake which was created in 1930 for flood control. It has a surface area of 41.7 miles, of which about two-thirds lie within the county. Other larger lakes of note in the county are: Caroga Lake, Peck Lake, and East and West Canada lakes. Many other smaller lakes dot the glaciated topography.

Geologic History and Bedrock Geology

The rocks in the Adirondack portion of the county have a long history, beginning with the Grenville Orogeny during the Proterozoic (1300 million years ago) with crustal stretching, ocean formation, and marine sedimentation. About 1250 to 1150 million years ago, the Grenville Orogeny buried these rocks as much as 30 kilometers below the surface. The earth’s crust was over-thickened, severely deformed and metamorphosed. Over the next several hundred million years, erosion removed more than 25 kilometers of rock (Isachsen, 2000).

The Proterozoic rocks are comprised of both metamorphic rocks that were formed from sediments (meta-sedimentary) and others of uncertain origins. The meta-

sediments are biotite-quartz-plagioclase gneisses or quartz feldspar gneiss. The gneisses are commonly garnetiferous. The gneiss bodies, whose origins are unclear as to whether they are primarily igneous or metamorphic, range in character from biotite granitic gneiss to granitic, charnockitic, and quartz syenite gneiss.

In the Late Cambrian, the area was gradually submerged beneath shallow seas; quartz sand was deposited on the continental shelf of the Proterozoic basement rocks, followed by an interval of carbonate sedimentation. The Cambrian and Ordovician age rocks are comprised of sandstone, limestone, and dolostone.

Although stripped away from much of the rest of the Adirondacks during regional uplift, the Cambrian Potsdam sandstone, Little Falls dolostone, and Tribes Hill limestone were preserved in down-dropped, fault-bounded half grabens while the other Paleozoic layers were eroded away (fig. 2).

During the Middle and Late Ordovician, the Utica shale was also deposited in a deep basin as dark organic mud from the eroded ancestral Taconic Mountains to the east.

From the Late Ordovician to the Tertiary Period, there is no evidence of any tectonic activity in the Adirondack region, despite three more mountain-building events that affected New England and southeastern New York. The region remained tectonically quiet until somewhere between 10 and 20 million years ago.

At this time, uplift and doming of the Adirondacks began, resulting in the removal of much of the remaining Cambrian and Ordovician age sedimentary rock and dissecting the area into a mountainous region.

Where soil is shallow, the underlying bedrock exerts an influence. Some of the shallow soils with strong bedrock influence in the survey area are Lyman series located throughout the county but particularly evident near Pine Lake and Canada Lake.

Glacial (Surficial) Geology

Continental ice sheets have advanced and retreated over the northeastern United States area four times during the Pleistocene epoch. During these glacial periods, several meters of bedrock were removed from the surface.

Evidence of glacial deposition remains only of the last major glaciation known as the Wisconsin Episode. This glaciation removed much of the evidence of earlier glaciations, eroding both the bedrock and all but very small areas of the previously existing regolith.

The Wisconsin Episode began as the global climate cooled, and the Laurentide Ice Sheet began to form east of James Bay, Quebec. By about 25,000 years before present, the Laurentide Ice had spread slowly southward in several lobes over New York.

The Mohawk Lobe and the Adirondack Lobe coalesced and covered Fulton County. From observations of glacial striations, it is known the ice covered even the highest peaks in the Adirondacks. In the survey area, the Mohawk Lobe and the Sacandaga and Kayaderosseras sub-lobes of the Adirondack Lobe were responsible for the erosion and subsequent deposition of glacial features remaining on the landscape.

As it advanced, the glacial ice ground up the rocks and soil beneath it and transported and deposited this material under the ice as a dense blanket of glacial till. This glacial till consists of an unsorted mixture of all sizes of rock fragments from clay-size to boulders.

In Fulton County, glacial till was deposited by both the Mohawk Lobe and the Sacandaga and Kayaderosseras sub-lobes of the Adirondack Lobe. The sandier till from the Sacandaga and Kayaderosseras lobes developed on the gneiss rocks of the Adirondacks. Examples of soils formed on this till are the Becket and Skerry series.

Figure 2.—This road cut exposes a remnant of the Little Falls dolostone in an area of Galway soils.

Soils developed on the Mohawk Lobe deposits are clayey and tend to have a greater percentage of coarse fragments that reflect the Paleozoic sedimentary rocks. Soils developed on these are the Lansing and Appleton series.

As the climate warmed, the rate of glacial melting exceeded the rate of advance, resulting in a net retreat of the glacial margin. Although there was a net retreat over time, moraines define where the ice front stood still or re-advanced temporarily during its retreat. The ice margin had probably completely melted away from the survey area by about 10,000 years before present.

As the ice margin withdrew, water flowing within the glacier transported sediment toward the edge of the ice sheet. This dirty material was either released directly from the ice, forming till, or washed out of the glacier in meltwater streams as outwash. Charlton and Berkshire series in the town of Broadalbin are examples of soils formed from this washed or less dense glacial till.

Some of the glacial features that remain today were left behind during the final northward retreat of the ice, when rock debris was released from the melting ice. Large quantities of glacial meltwater carried and then deposited sand and gravel as several types of glacial landforms. Kames, kame complexes and eskers were deposited in contact with the wasting ice. In other areas, sand and gravel were deposited in front of the ice as valley trains of outwash or outwash plains. Colton and Adams soils near Northville are good examples of soils that formed in the outwash plains and ice contact deposits.

Both recessional and interlobate moraines are found in the study area. There are three moraines situated in the survey area. The most extensive is the Broadalbin Moraine/Kame Complex which extends east-west from Gloversville to east of Broadalbin (De Simone, D.J., and La Fleur, R.G., 1985). This is interpreted as an interlobate moraine deposited between the Sacandaga sub-lobe and Mohawk ice lobe (Yatsevich, 1969). The moraine contains both ice contact gravelly sands and interbedded flow tills.

The Jackson Summit Moraine complex borders Peck Lake and extends southwestward to the Big Nose along the Mohawk River. It forms the head of several valley trains that extend south of Caroga Lake (De Simone, D.J., and La Fleur, R.G., 1985).

The Perth Moraine is comprised of both till and stratified drift. It lies south of the Broadalbin Moraine Complex (De Simone, D.J., and La Fleur, R.G., 1985).

The Alton and Windsor soils are examples of soils that developed on the stratified drift of these moraines and the Charlton and Broadalbin series are soils developed on the till areas.

In the Fulton County area, there is evidence of two glacial re-advances following each glacial retreat. Water from the melting ice was ponded in pro-glacial lakes in the Mohawk, Sacandaga, Kayaderosseras and Hudson Valleys. These advances and re-advances resulted in the formation of several glacial lakes. The largest glacial lake in the county was Lake Sacandaga, which formed between the retreating Sacandaga sub-lobe and the Broadalbin moraine (Yatsevich, 1969). Tonawanda and Madalin are examples of soils formed on the glacial lake sediments.

As the ice retreated and the weight from its great thickness was removed, the land began to rebound.

Many lakes, ponds and wetlands formed during these late stages of deglaciation. Some water bodies still exist, while lacustrine sediments and organic deposits began to form in peat bogs, marshes, and swamps. Pleasant Lake and Burnt Vly soils formed in these organic deposits. Areas near Dexter and Spectacle lakes are examples of these soils in the county.

After drainage of the pro-glacial lakes, the barren lake bottoms and shorelines were exposed to wind erosion. Westerly winds picked up fine-grained sand and deposited it on westward facing hillsides. The modern day stream network began to establish soon after deglaciation. Unadilla soils formed in the eolian sand dunes and Endoaquolls soils formed in the alluvial stream deposits.

The processes of erosion, sedimentation and alluvial landscape alteration remain active. Alluvial soils, including Teel series formed along the Mohawk River and East Canada Creek from these recent river and stream bottom deposits.

Climate

This section was prepared by the Natural Resources Conservation Service, National Water and Climate Center, Portland, Oregon.

The following section is a climate summary for Fulton County, New York. The first part describes conditions in Gloversville, New York which represents the mesic or warmer portion of this survey area. The second part of this section describes the climatic conditions at the station in Indian Lake, New York which represents the frigid or colder portion of this survey area.

Table 1a gives data on temperature and precipitation for the survey area as recorded from a climate station at Gloversville, New York in the period 1971 to 2000. Table 2a shows probable dates of the first freeze in fall and the last freeze in spring. Table 3a provides data on the length of the growing season. Thunderstorm days, relative humidity, percent sunshine, and wind information are estimated from First Order station Albany, New York.

In winter, the average temperature is 22.2 degrees F and the average daily minimum temperature is 13.2 degrees. The lowest temperature on record, which occurred at Gloversville on January 6, 1996, is -29 degrees. In summer, the average temperature is 67.2 degrees and the average daily maximum temperature is 78.3 degrees. The highest temperature, which occurred at Gloversville on September 3, 1953, is 95 degrees.

Growing degree days are shown in Table 1a. They are equivalent to “heat units”. During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (40 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The average annual total precipitation is about 45.25 inches. Of this, about 20.91 inches, or 46 percent, usually falls in May through September. The growing season for most crops falls within this period. The heaviest 1-day rainfall during the period of record was 3.15 inches at Gloversville on August 30, 1975. Thunderstorms occur on about 27 days each year, and most occur in July.

The average seasonal snowfall is 76.6 inches. The greatest snow depth at any one time during the period of record was 61 inches recorded on March 4, 1994. The heaviest 1-day snowfall on record was 21.5 inches recorded on March 4, 1994.

The average relative humidity in mid-afternoon is about 58 percent. Humidity is higher at night, and the average at dawn is about 81 percent. The sun shines 61 percent of the time in summer and 46 percent in winter. The prevailing wind is from the southwest. Average wind speed is highest, 10.5 miles per hour, in March.

Table 1b gives data on temperature and precipitation for the survey area as recorded at a climate station at Indian Lake 2 SW, New York in the period 1971 to 2000. Table 2b shows probable dates of the first freeze in fall and the last freeze in spring. Table 3b provides data on the length of the growing season. Thunderstorm days, relative humidity, percent sunshine, and wind information are estimated from First Order station Albany, New York and climate atlases.

In winter, the average temperature is 17.2 degrees F and the average daily minimum temperature is 6.4 degrees. The lowest temperature on record, which occurred at Indian Lake 2 SW on January 15, 1957, is -36 degrees. In summer, the average temperature is 61.7 degrees and the average daily maximum temperature is 73.0 degrees. The highest temperature, which occurred at Indian Lake 2 SW on August 2, 1975, is 94 degrees.

Growing degree days are shown in Table 1b. They are equivalent to “heat units”. During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (40 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The average annual total precipitation is about 40.50 inches. Of this, about 15.47 inches, or 38 percent, usually falls in June through September. The growing season for most crops falls within this period. The heaviest 1-day rainfall during the period of record was 3.72 inches at Indian Lake 2 SW on September 2, 1956. Thunderstorms occur on about 25 days each year, and most occur in July.

The average seasonal snowfall is 54.7 inches. The greatest snow depth at any one time during the period of record was 50 inches recorded on April 1, 2001. The heaviest 1-day snowfall on record was 18.5 inches recorded on February 17, 1958.

The average relative humidity in mid-afternoon is about 59 percent. Humidity is higher at night, and the average at dawn is about 85 percent. The sun shines 59 percent of the time in summer and 38 percent in winter. The prevailing wind is from the west. Average wind speed is highest, 11.5 miles per hour, in March.

How This Survey Was Made

The Fulton County Soil Survey was made to provide information about the soils and miscellaneous areas in the survey area. The information includes a description of the soils and miscellaneous areas and their location and a discussion of their suitability, limitations, and management for specified uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They dug many holes to

study the soil profile, which is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

The soils and miscellaneous areas in the survey area are in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept or model of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

This survey was mapped at two levels of detail. At the more detailed level, map units are narrowly defined. Map unit boundaries were plotted and verified at closely spaced intervals. At the less detailed level, map units are broadly defined. Boundaries were plotted and verified at wider intervals. In the legend for the detailed soil maps, broadly defined units are indicated by symbols 10A, 25A, 211A and by symbols having numbers from 363 through 941. Narrowly defined units are defined by all other numbers preceding the letter that represents the slope class.

The descriptions, name, and delineations of the soils in this survey area do not fully agree with those of the soils in adjacent survey areas. Differences are the result of a better knowledge of soils, modifications in series concepts, or variations in the intensity of mapping or in the extent of the soils in the survey areas.

Map Unit Composition

A map unit delineation on a soil map represents an area dominated by one major kind of soil or an area dominated by several kinds of soil. A map unit is identified and named according to the taxonomic classification of the dominant soil or soils. Within a taxonomic class, there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural objects. In common with other natural objects, they have a characteristic variability in their properties. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of soils of other taxonomic classes. Consequently, every map unit is made up of the soil or soils for which it is named and some soils that belong to other taxonomic classes. These latter soils are called inclusions or included soils.

Most inclusions have properties and behavioral patterns similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting (similar) inclusions. They may or may not be mentioned in the map unit descriptions. Other inclusions, however, have properties and behavior divergent enough to affect use or require different management. These are contrasting (dissimilar) inclusions. They generally occupy small areas and cannot be shown separately on the soil maps because of the scale used in mapping. The inclusions of contrasting soils are mentioned in the map unit descriptions. A few inclusions may not have been observed and consequently are not mentioned in the descriptions, especially where the soil pattern was so complex that it was impractical to make enough observations to identify all of the kinds of soil on the landscape.

The presence of inclusions in a map unit in no way diminishes the usefulness or accuracy of the soil data. The objective of soil mapping is not to delineate pure taxonomic classes of soils, but rather to separate the landscape into segments that have similar use and management requirements. The delineation of such landscape segments on the map provides sufficient information for the development of resource plans, but onsite investigation is needed to plan for intensive uses in small areas.

Survey Procedures

The general procedures followed in making this survey are described in the National Soils Handbook (USDA, NRCS 1996) of the Natural Resources Conservation Service and the Soil Survey Manual (USDA, SCS 1993). The soil survey maps made for conservation planning on individual farms prior to the start of the project were among the references used.

Before the field work began, preliminary boundaries of slopes and landforms were plotted stereoscopically on aerial photographs, and enlarged to a scale of 1:24,000. Soil scientists studied U.S. Geological Survey topographic maps, at a scale of 1:24,000, and high altitude false color infrared photography to relate land and image

features. A reconnaissance was made by vehicle before the landscape was traversed on foot.

Sample areas were selected to represent the major landscapes in the county. These areas were investigated more closely than the rest of the county. Extensive notes were taken on the composition of map units in these preliminary study areas. As mapping progressed, these preliminary notes were modified and a final assessment of the composition of the individual map units was made. In areas where phases of Broadalbin, Mosherville, Paxton and Woodbridge series were mapped, and in other areas where the soil pattern is very complex, traverses were as close as 100 yards. In the Adirondack portion of the county, where phases of Berkshire, Becket, and Tunbridge series are mapped, the soil pattern is relatively simple, so traverses were about 0.25 to 1 mile apart.

As the traverses were made, the soil scientists divided the landscape into landforms or landform segments based on use and management of the soils. For example, a hill would be separated from a depression and a gently sloping summit from a very steep back slope of a ridge. In most areas soil examinations along the traverses were made 50 to 800 yards apart, depending on the landscape and soil pattern.

Observations of such items as landform, blown-down trees, vegetation, roadbanks, and animal burrows were made without regard to spacing. Soil boundaries were determined on the basis of soil examinations, observations, and photo interpretation. The soil material was examined with the aid of a hand auger or a spade to a depth of about 6 feet or to bedrock within a depth of 6 feet. The pedons described as typical were observed and studied in pits that were dug with shovels, spades, or backhoes.

Samples for chemical and physical analyses and for analyses of engineering properties were taken from representative sites of several of the soils in the survey area. The chemical and physical analyses were made by the Soil Characterization Laboratory, Department of Agronomy, Cornell University. The analyses for engineering properties were made by the N.Y.S. Department of Transportation, Bureau of Soil Mechanics. A description of the laboratory procedures can be obtained on request from these two laboratories. The results of the studies can be obtained from the state office of the Natural Resources Conservation Service, Syracuse, New York.

Detailed Soil Map Units

The map units delineated on the detailed soil maps in this survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this section, along with the maps, can be used to determine the suitability and potential of a unit for specific uses. They also can be used to plan the management needed for those uses.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. The contrasting components are mentioned in the map unit descriptions. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives the principal hazards and limitations to be considered in planning for specific uses.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. The soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name

of a soil phase commonly indicates a feature that affects use or management. For example, Appleton silt loam, 3 to 8 percent slopes is a phase of the Appleton series.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Becket-Tunbridge complex, 3 to 15 percent slopes, rocky, very bouldery is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Saprists and Aquents, 0 to 2 percent slopes, frequently ponded is an undifferentiated group in this survey area.

This survey includes *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Urban land is an example.

Table 4 gives the acreage and proportionate extent of each map unit. Other tables give properties of the soils and the limitations, capabilities, and potentials for many uses. The Glossary defines many of the terms used in describing the soils or miscellaneous areas.

3A—Endoaquolls and Hapludolls, 0 to 3 percent slopes, frequently flooded

Setting

This map unit consists of nearly level, recently deposited sediments on flood plains along major streams in the Mohawk Valley (fig. 3).

Map Unit Composition

Major Components
Endoaquolls, frequently flooded: 55 percent
Hapludolls, frequently flooded: 30 percent

Inclusions
Hapludolls, rarely flooded phase: 5 percent
Saprists: 5 percent
Teel: 5 percent

Included in mapping are areas of Hapludolls and Teel soils where horizon characteristics are better developed because of only occasional or rare flooding. Also included are Saprists having thicker organic matter accumulation on the surface.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
  Endoaquolls, frequently flooded: yes
  Hapludolls, frequently flooded: yes
Hydrologic group:
  Endoaquolls, frequently flooded: A/D
  Hapludolls, frequently flooded: B

Figure 3.—The flood plain of Hale Creek was mapped 3A Endoaqualls and Hapludolls, 0 to 3 percent slopes, frequently flooded. Restoration of this wetland helps protect this classified trout stream from pollutants off of nearby fields. The hill in the background is a small drumlin with Alton gravelly loam along its lower slopes.

Photo taken by Harold Wheeler, Conservation Education Coordinator, Fulton County Soil and Water Conservation District.

Soil Properties and Qualities

Endoaquolls, frequently flooded
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 18 inches
    Water table kind: apparent
Flooding: frequent
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: flood plains
Parent material: recent alluvium
Reaction (pH)
    0 to 4 inches: very strongly acid to neutral (4.5 to 7.3)
    4 to 11 inches: very strongly acid to neutral (4.5 to 7.3)
    11 to 18 inches: moderately acid to moderately alkaline (5.6 to 8.4)
    18 to 24 inches: moderately acid to moderately alkaline (5.6 to 8.4)
    24 to 29 inches: moderately acid to moderately alkaline (5.6 to 8.4)
    29 to 33 inches: moderately acid to moderately alkaline (5.6 to 8.4)
    33 to 60 inches: moderately acid to moderately alkaline (5.6 to 8.4)

Permeability
- 0 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 4 to 11 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 11 to 18 inches: moderately slow to rapid (0.2 to 20 inches/hour)
- 18 to 24 inches: moderately slow to rapid (0.2 to 20 inches/hour)
- 24 to 29 inches: moderately slow to rapid (0.2 to 20 inches/hour)
- 29 to 33 inches: moderately slow to very rapid (0.2 to 100 inches/hour)
- 33 to 60 inches: moderately slow to very rapid (0.2 to 100 inches/hour)

Hapludolls, frequently flooded
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 36 inches
- Water table kind: apparent

Flooding: frequent
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Landform: flood plains
Parent material: recent alluvium
Reaction (pH):
- 0 to 2 inches: very strongly acid to neutral (4.5 to 7.3)
- 2 to 10 inches: very strongly acid to neutral (4.5 to 7.3)
- 10 to 19 inches: moderately acid to moderately alkaline (5.6 to 8.4)
- 19 to 29 inches: moderately acid to moderately alkaline (5.6 to 8.4)
- 29 to 33 inches: moderately acid to moderately alkaline (5.6 to 8.4)
- 33 to 36 inches: moderately acid to moderately alkaline (5.6 to 8.4)
- 36 to 40 inches: moderately acid to moderately alkaline (5.6 to 8.4)
- 40 to 60 inches: moderately acid to moderately alkaline (5.6 to 8.4)

Permeability:
- 0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 10 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 10 to 19 inches: moderately slow to rapid (0.2 to 20 inches/hour)
- 19 to 29 inches: moderately slow to rapid (0.2 to 20 inches/hour)
- 29 to 33 inches: moderately slow to rapid (0.2 to 20 inches/hour)
- 33 to 36 inches: moderately slow to rapid (0.2 to 20 inches/hour)
- 36 to 40 inches: moderately slow to very rapid (0.2 to 100 inches/hour)
- 40 to 60 inches: moderately slow to very rapid (0.2 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland

This map unit is poorly suited to cultivated crops due to the seasonal high water table. Flooding may delay planting or damage crops in some years. The root system of some deep-rooted crops may be damaged by frost action.

Pasture

The seasonal high water table, particularly in Endoaquolls, severely limits forage production. Grass or legume species that are adapted to wet soil conditions should be considered for planting. Sediment left on forage plants after a flood event may reduce palatability and forage intake by the grazing animal. Planting adapted species can minimize the root damage caused by frost action.

Woodland
- Avoiding construction of haul roads in frequently flooded areas is recommended. Locating roads on higher, better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads due to wetness. Consult the Water Features table for months of seasonal saturation.
- Avoiding construction of log landings is recommended on these frequently flooded soils and in poorly drained areas of this unit.
- Restricting harvesting operations during months of seasonal saturation, or logging when the ground is frozen, locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and the maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness-tolerant species will help overcome seedling mortality limitations due to flooding and the seasonal high water table. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

Other sites should be considered for this dwellings with basements. Potential for frequent flooding severely limits the capacity of these soils to bear a load without movement. Flooding may result in costly physical damage to buildings. The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Probable flooding in areas of these soils greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwaters may damage some components of septic systems. The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of the septic effluent. Costly measures may be needed to lower the water table around the absorption field or to raise the absorption field. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Flooding limits the use of these soils for local roads and streets. Special design of roads and bridges is necessary. The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help to reduce these limitations.

4C—Udorthents, 0 to 15 percent slopes, smoothed

Setting

This unit is on gently sloping and strongly sloping areas of former construction sites, borrow areas, and associated landscaped areas in the Mohawk Valley. Most of the fill material is soil from onsite land shaping.

Map Unit Composition

Major Components
Udorthents, smoothed: 75 percent

Inclusions
Broadalbin: 5 percent
Lansing: 5 percent
Paxton: 5 percent
Scio: 2 percent
Woodbridge: 2 percent
Unnamed: 6 percent

Included in mapping are areas of Broadalbin, Lansing, Paxton, Scio and Woodbridge soils which occur in adjacent map units and have complete ABC soil profiles.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 3s
Hydric soil rating:
    Udorthents, smoothed: no
Hydrologic group:
    Udorthents, smoothed: C

Soil Properties and Qualities

Udorthents, smoothed
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 36 inches
    Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: cut or filled leveled lands
Parent material: loamy human transported material
Reaction (pH):
    0 to 4 inches: very strongly acid to moderately alkaline (4.5 to 8.4)
    4 to 17 inches: very strongly acid to moderately alkaline (4.5 to 8.4)
    17 to 27 inches: very strongly acid to moderately alkaline (4.5 to 8.4)
    27 to 36 inches: very strongly acid to moderately alkaline (4.5 to 8.4)
    36 to 72 inches: very strongly acid to moderately alkaline (4.5 to 8.4)
Permeability:
    0 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    4 to 17 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    17 to 27 inches: slow to moderately rapid (0.06 to 6 inches/hour)
    27 to 36 inches: slow to moderately rapid (0.06 to 6 inches/hour)
    36 to 72 inches: slow to moderately rapid (0.06 to 6 inches/hour)

Use and Management

Cropland
This unit has been negatively affected by leveling or other disturbance. The topsoil is commonly absent or thin. Using a system of conservation tillage and planting cover

crops may help to thicken the topsoil and reduce the runoff rate so as to minimize soil erosion. Subsurface drainage in low areas may also be needed to extend the period of planting and crop harvesting.

Pasture

This unit has been negatively affected by leveling or other disturbance. The topsoil is commonly absent or thin. Therefore, forage yields may be low or variable from one part of the unit to another. Erosion control is also needed if pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

- Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal saturation.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness.
- Avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table may limit the capacity of these soils to bear a load without movement. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance. Strongly sloping areas of this unit may influence the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The seasonal high water table in some areas of these soils may limit the absorption and proper treatment of effluent from septic systems. The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of the effluent from septic systems. Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines. Onsite investigation is recommended to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table may impede excavation and grading of roads and reduces the bearing capacity of these soils. Local roads and streets can also be damaged by frost action, which is caused by the freezing and thawing of soil moisture. Installing a drainage system and adding suitable subgrade material to raise the roadbed may help reduce wetness and frost action limitations. Strongly sloping areas of this unit may impede trafficability of heavy machinery and increase cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

5C—Udorthents, 4 to 33 percent slopes, refuse substratum

Setting

This gently sloping to steep miscellaneous unit is made up of modern Municipal Solid Waste Landfill Systems. It consists of completed, capped and covered areas, and of active cells in the Mohawk Valley.

Map Unit Composition

Major Components
Udorthents, refuse substratum: 70 percent

Inclusions
Unnamed: 30 percent

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 8
Hydric soil rating:
    Udorthents, refuse substratum: no
Hydrologic group:
    Udorthents, refuse substratum: D

Soil Properties and Qualities

Udorthents, refuse substratum
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: low
Shrink-swell potential: moderate
Landform: sanitary landfills
Parent material: human transported material
Reaction (pH):
    0 to 21 inches: very strongly acid to neutral (4.5 to 7.3)
    21 to 39 inches: moderately acid to neutral (5.6 to 7.3)
    39 to 39 inches: very strongly acid to moderately alkaline (4.5 to 8.4)
    39 to 57 inches: moderately acid to moderately alkaline (5.6 to 8.4)
    57 to 300 inches: very strongly acid to moderately alkaline (4.5 to 8.4)
Permeability:
    0 to 21 inches: moderate to rapid (1 to 7 inches/hour)
    21 to 39 inches: very slow to moderate (0.01 to 2 inches/hour)
    39 to 39 inches: impermeable (0 to 0.001 inches/hour)
    39 to 57 inches: very slow or slow (0.01 to 0.2 inches/hour)
    57 to 300 inches: moderate to rapid (1 to 10 inches/hour)

Use and Management

Cropland
This map unit is a landfill and not suited to cultivated crops.

Pasture

This map unit is a landfill and may not be suited to current or future pasture.

Woodland

This map unit is a landfill and is generally not suited to woodland uses because of maintenance needs and environmental concerns.

Development

Erosion and sediment control are severe problems on this map unit. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use.

Septic Tank Absorption Fields

Other sites should be considered for this use.

Local Roads and Streets

Other sites should be considered for this use.

6A—Saprists and Aquents, 0 to 2 percent slopes, frequently ponded

Setting

This unit is on nearly level areas within depressions of till plains, glacial lake plains and along streams mainly in the Mohawk Valley.

Map Unit Composition

Major Components

Saprists, frequently ponded: 40 percent
Aquents, frequently ponded: 35 percent

Inclusions

Catden: 5 percent
Cheektowaga: 5 percent
Fonda: 5 percent
Scarboro: 5 percent
Timakwa: 5 percent

Included in mapping are areas of Catden and Timakwa series having a wooded and/or sphagnum moss vegetative cover overlying more than 16 inches organic matter. Inclusions of Cheektowaga and Fonda series are mostly mineral soils with clayey substrata. Scarboro series are included in areas with sandy substrata.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7w
Hydric soil rating:
  Saprists, frequently ponded: yes
  Aquents, frequently ponded: yes
Hydrologic group:
  Saprists, frequently ponded: D
  Aquents, frequently ponded: D

Soil Properties and Qualities

Saprists, frequently ponded
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
  Water table kind: apparent
  Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: closed depressions
Parent material: well decomposed organic material over mineral deposits
Reaction (pH):
  0 to 51 inches: extremely acid to neutral (4.0 to 6.8 in CaCl2)
  51 to 72 inches: very strongly acid to moderately alkaline (4.5 to 8.4)
Permeability:
  0 to 51 inches: slow to moderately rapid (0.06 to 6 inches/hour)
  51 to 72 inches: slow to rapid (0.06 to 20 inches/hour)

Aquents, frequently ponded
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
  Water table kind: apparent
  Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: closed depressions
Parent material: thin organic material over mineral deposits
Reaction (pH):
  0 to 9 inches: extremely acid to neutral (4.0 to 6.8 in CaCl2)
  9 to 70 inches: very strongly acid to moderately alkaline (4.5 to 8.4)
Permeability:
  0 to 9 inches: slow to moderately rapid (0.06 to 6 inches/hour)
  9 to 70 inches: slow to rapid (0.06 to 20 inches/hour)

Use and Management

This map unit generally contains important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
This map unit is not suited to cultivated crops due to ponding.

Pasture
This map unit is not suited to pasture due to ponding.

Woodland
- This unit is considered a wetland. Locating roads on higher, better drained soils will help overcome construction limitations of haul roads due to wetness. Consult the Water Features table for months of seasonal saturation.

- This unit is subject to ponding and should be avoided while locating log landings (fig. 4).
- Areas of soils with thick organic surfaces should only be harvested in the winter months by tracked equipment when the soils are frozen and snow pack is deep enough to protect them from rutting.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and the maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to ponding or flooding. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

Other sites should be considered for this use because of ponding during most of the year.

Septic Tank Absorption Fields

Other sites should be considered for this use because of ponding during most of the year.

Local Roads and Streets

Other sites should be considered for this use. This map unit is very limited for local roads and streets due to ponding. Seasonal ponding affects the ease of excavation and grading of roads and limits the bearing capacity of the soil. Local roads and streets can also be damaged by frost action, which is caused by the freezing and thawing

Figure 4.—Map unit 6A Saprists and Aquents is commonly ponded throughout the year depending upon rainfall distribution. Past or present beaver activity has created some of these areas.

of soil water. The addition of coarse-textured subgrade material and supplemental drainage may help reduce these limitations.

7B—Endoaquents, 0 to 8 percent slopes, smoothed

Setting

This unit is on nearly level and gently sloping, former construction sites, borrow areas, and associated landscaped areas. Many of the areas were previously considered flood plains within the Mohawk Valley. Although filled areas are somewhat higher than the original elevation, they may still be susceptible to flooding. Most of this unit consists of earthen material from onsite land shaping.

Map Unit Composition

Major Components
Endoaquents, smoothed: 75 percent

Inclusions
Appleton: 5 percent
Mosherville: 5 percent
Paxton: 5 percent
Ridgebury: 5 percent
Tonawanda: 5 percent

Included in mapping are the Appleton, Mosherville, Paxton, Ridgebury and Tonawanda series which are the most common adjacent soils having a complete ABC soil profile.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 3w
Hydric soil rating:
  Endoaquents, smoothed: no
Hydrologic group:
  Endoaquents, smoothed: D

Soil Properties and Qualities

Endoaquents, smoothed
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 6 to 18 inches
  Water table kind: apparent
Flooding: rare
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Landform: smoothed fills
Parent material: loamy human transported material
Reaction (pH):
  0 to 10 inches: very strongly acid to neutral (4.5 to 7.3)
  10 to 16 inches: very strongly acid to moderately alkaline (4.5 to 8.4)
  16 to 20 inches: very strongly acid to moderately alkaline (4.5 to 8.4)
  20 to 23 inches: very strongly acid to moderately alkaline (4.5 to 8.4)

23 to 36 inches: very strongly acid to moderately alkaline (4.5 to 8.4)
36 to 50 inches: very strongly acid to moderately alkaline (4.5 to 8.4)

Permeability:
0 to 10 inches: slow to moderately rapid (0.06 to 6 inches/hour)
10 to 16 inches: slow to moderately rapid (0.06 to 6 inches/hour)
16 to 20 inches: slow to moderately rapid (0.06 to 6 inches/hour)
20 to 23 inches: slow to moderately rapid (0.06 to 6 inches/hour)
23 to 36 inches: slow to rapid (0.06 to 20 inches/hour)
36 to 50 inches: slow to rapid (0.06 to 20 inches/hour)

Use and Management

Cropland

This unit has been negatively affected by leveling or other disturbance. The topsoil is commonly absent or thin. Systematic subsurface drainage may improve planting and harvesting of local crops. Local flooding may delay planting or damage crops in some years. The root system of some deep-rooted crops may also be damaged by frost action.

Pasture

Commonly, this unit has been affected by leveling or other disturbance. The topsoil is commonly absent or thin. Therefore, forage yields will be variable or low. Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted. Planting adapted species can minimize the root damage caused by frost action.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal saturation.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness.
- Restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen is a good management practice. Carefully locating major skid trails and winching logs to them to reduce the skidder footprint and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage while maintaining buffers around the upland edges may help overcome windthrow hazard due to wetness.

Development

Erosion and sediment control can be problems. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table limits the capacity of this soil to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance. Potential for local flooding may severely limit the capacity of this soil to bear a load without movement and result in costly physical damage to buildings.

Septic Tank Absorption Fields

The seasonal high water table in areas of this soil greatly limits the absorption and proper treatment of the effluent from septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field. Possible local flooding in some areas limits the absorption and proper treatment of septic effluent. Choosing slightly higher positions on nearby landscapes may overcome this concern. Onsite investigation is needed to determine the suitability of this soil for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading of roads and reduces the bearing capacity of this soil. Severe storm events may result in local flood damage to roads and streets. Special design of roads and bridges may be necessary. Local roads and streets may also be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce these limitations.

10A—Pleasant Lake-Burnt Vly complex, 0 to 2 percent slopes

Setting

This map unit occurs in nearly level depressions on glacial outwash plains and lake plains in the Adirondack foothills.

Map Unit Composition

Major Components
Pleasant Lake: 45 percent
Burnt Vly: 35 percent

Inclusions
Searsport: 10 percent
Naumburg: 3 percent
Sabattis: 3 percent
Adirondack: 2 percent
Colton: 2 percent

Included in mapping are areas of Searsport and Sabattis soils where the organic material is less than 16 inches thick. Inclusions of Naumburg soils are sandy and on slightly higher positions such as terraces. Somewhat poorly drained Adirondack soils are included as loamy till on higher positions. Small inclusions of Colton soils are very gravelly or cobbly.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7w
Hydric soil rating:
- Pleasant Lake: yes
- Burnt Vly: yes

Hydrologic group:
- Pleasant Lake: D
- Burnt Vly: D

Soil Properties and Qualities

Pleasant Lake
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
 Water table kind: apparent
 Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: depressions
Parent material: highly decomposed woody organic material
Reaction (pH):
 0 to 2 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
 2 to 5 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
 5 to 44 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
 44 to 78 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
 78 to 86 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
Permeability:
 0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 2 to 5 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 5 to 44 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 44 to 78 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 78 to 86 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Burnt Vly
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
 Water table kind: apparent
 Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: depressions
Parent material: highly decomposed woody organic material over sandy glaciolacustrine deposits
Reaction (pH):
 0 to 1 inch: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
 1 to 3 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
 3 to 11 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
 11 to 26 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
 26 to 30 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
 30 to 60 inches: extremely acid to slightly acid (3.5 to 6.5)
Permeability:
 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 3 to 11 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 11 to 26 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 26 to 30 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 30 to 60 inches: rapid (6 to 20 inches/hour)

Use and Management

This map unit contains important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Woodland

- Locating roads on higher, better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads due to wetness. Consult the Water Features table for months of seasonal saturation.
- These areas of thick organic soils that are subject to ponding should be avoided when locating log landings.
- Limiting timber harvesting operations to winter months when the ground is frozen is recommended for soils with thick organic surfaces and low bearing strength. These soils should only be harvested in the winter months by tracked equipment in years when the soils are frozen and snow pack is deep enough to protect them from rutting.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and the maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness-tolerant species will help overcome seedling mortality limitations due to ponding or flooding. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

This unit is not suitable for this use because of ponding and high content of organic matter. The organic matter content limits soil strength and severely affects the capacity of these soils to bear a load without movement. The potential for excessive subsidence in these organic soils severely limits the capacity to support a load without movement and can cause shifting or collapsing foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields

This unit is not suitable for septic tank absorption fields because of ponding and high content of organic matter.

Local Roads and Streets

This unit is very limited for local roads and streets due to the potential for ponding and low bearing strength. Seasonal ponding affects the ease of excavation and grading of soil and limits the bearing capacity. Local roads and streets may also be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce these limitations.

11B—Hinckley and Windsor soils, 3 to 8 percent slopes

Setting

This unit is on gently sloping glacial outwash plains in the Mohawk Valley.

Map Unit Composition

Major Components

Hinckley: 40 percent
Windsor: 35 percent

Inclusions
Merrimac: 8 percent
Ninigret: 7 percent
Rhinebeck: 5 percent
Scio: 5 percent

Included in mapping are areas of Merrimac soils having a loamy mantle above a sandy substratum. Moderately well drained Ninigret soils occur in slightly lower or more concave positions on the landform. Also included in low-lying areas are clayey Rhinebeck soils and silty Scio soils.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 3s
Hydric soil rating:
 Hinckley: no
 Windsor: no
Hydrologic group:
 Hinckley: A
 Windsor: A

Soil Properties and Qualities

Hinckley
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Landform: outwash plains, terraces
Parent material: sandy and gravelly outwash
Reaction (pH):
 0 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
 6 to 16 inches: extremely acid to moderately acid (3.5 to 6.0)
 16 to 20 inches: extremely acid to moderately acid (3.5 to 6.0)
 20 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
 0 to 6 inches: rapid (6 to 20 inches/hour)
 6 to 16 inches: rapid (6 to 20 inches/hour)
 16 to 20 inches: rapid (6 to 20 inches/hour)
 20 to 72 inches: very rapid (20 to 100 inches/hour)

Windsor
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, proglacial outwash plains, proglacial terraces

Parent material: sandy outwash
Reaction (pH):
0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
2 to 11 inches: very strongly acid to moderately acid (4.5 to 6.0)
11 to 21 inches: very strongly acid to moderately acid (4.5 to 6.0)
21 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
25 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 11 inches: rapid (6 to 20 inches/hour)
11 to 21 inches: rapid (6 to 20 inches/hour)
21 to 25 inches: rapid (6 to 20 inches/hour)
25 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland

This unit tends to be droughty for most crops because of low available water capacity. Plants may suffer from moisture stress during drier summer months. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture. Also, using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture

These soils are well suited to pasture. Plants may suffer moisture stress during the drier summer months because of the limited available water capacity. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

Managing for drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control may be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

There are no major limitations for this use.

Septic Tank Absorption Fields

Excessive rates of water movement through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in some areas. Poorly treated effluent may pollute the water table. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

There are no major limitations for this use.

11C—Hinckley and Windsor soils, 8 to 15 percent slopes

Setting

This unit is on strongly sloping areas of glacial outwash plains in the Mohawk Valley.

Map Unit Composition

Major Components
Hinckley: 40 percent
Windsor: 35 percent

Inclusions
Merrimac: 8 percent
Ninigret: 6 percent
Rhinebeck: 3 percent
Scio: 3 percent
Unnamed: 5 percent

Included in mapping are areas of Merrimac soils having a loamy mantle above a sandy substratum. Moderately well drained Ninigret soils occur in slightly lower or more concave positions on the landform. Also included in low-lying areas are clayey Rhinebeck soils and silty Scio soils.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4s
Hydric soil rating:
- Hinckley: no
- Windsor: no

Hydrologic group:
- Hinckley: A
- Windsor: A

Soil Properties and Qualities

Hinckley
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Landform: outwash plains, terraces
Parent material: sandy and gravelly outwash
Reaction (pH):
- 0 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
- 6 to 16 inches: extremely acid to moderately acid (3.5 to 6.0)
- 16 to 20 inches: extremely acid to moderately acid (3.5 to 6.0)
- 20 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)

Permeability:
- 0 to 6 inches: rapid (6 to 20 inches/hour)
- 6 to 16 inches: rapid (6 to 20 inches/hour)
- 16 to 20 inches: rapid (6 to 20 inches/hour)
- 20 to 72 inches: very rapid (20 to 100 inches/hour)

Windsor
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, outwash plains, terraces
Parent material: sandy outwash
Reaction (pH):
0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
2 to 11 inches: very strongly acid to moderately acid (4.5 to 6.0)
11 to 21 inches: very strongly acid to moderately acid (4.5 to 6.0)
21 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
25 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 11 inches: rapid (6 to 20 inches/hour)
11 to 21 inches: rapid (6 to 20 inches/hour)
21 to 25 inches: rapid (6 to 20 inches/hour)
25 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland
This unit tends to be droughty for most crops because of low available water capacity. Plants may suffer from moisture stress during drier summer months. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
This unit is droughty because of low available water capacity. Plants may suffer moisture stress during the drier summer months. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland
Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development
Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
These strongly sloping areas influence the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems. Poorly treated effluent may pollute ground water in

the area near the absorption field. Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines. Onsite investigation will help determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

11D—Hinckley and Windsor soils, 15 to 25 percent slopes

Setting

This unit is on moderately steep side slopes of glacial outwash plains in the Mohawk Valley.

Map Unit Composition

Major Components
Hinckley: 40 percent
Windsor: 40 percent

Inclusions
Merrimac: 7 percent
Ninigret: 3 percent
Scio: 2 percent
Rhinebeck: 1 percent
Unnamed: 7 percent

Included in mapping are areas of Merrimac soils having a loamy mantle above a sandy substratum. Moderately well drained Ninigret soils occur in concave positions and along drainageways. Also included in low-lying areas are clayey Rhinebeck soils and silty Scio soils.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Hinckley: no
  Windsor: no
Hydrologic group:
  Hinckley: A
  Windsor: A

Soil Properties and Qualities

Hinckley
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low

Landform: outwash plains, terraces
Parent material: sandy and gravelly outwash
Reaction (pH):
    0 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
    6 to 16 inches: extremely acid to moderately acid (3.5 to 6.0)
    16 to 20 inches: extremely acid to moderately acid (3.5 to 6.0)
    20 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
    0 to 6 inches: rapid (6 to 20 inches/hour)
    6 to 16 inches: rapid (6 to 20 inches/hour)
    16 to 20 inches: rapid (6 to 20 inches/hour)
    20 to 72 inches: very rapid (20 to 100 inches/hour)

Windsor
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, outwash plains, terraces
Parent material: sandy outwash
Reaction (pH):
    0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in $CaCl_2$)
    2 to 11 inches: very strongly acid to moderately acid (4.5 to 6.0)
    11 to 21 inches: very strongly acid to moderately acid (4.5 to 6.0)
    21 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
    25 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
    0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    2 to 11 inches: rapid (6 to 20 inches/hour)
    11 to 21 inches: rapid (6 to 20 inches/hour)
    21 to 25 inches: rapid (6 to 20 inches/hour)
    25 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland

This unit is poorly suited to growing crops because of moderately steep slopes. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Plants may suffer from moisture stress during drier summer months because of the low available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture

Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion and subsequent loss of topsoil. Plants may suffer moisture stress during the drier summer months because of the low available water capacity.

Woodland

- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome

construction and maintenance limitations of haul roads due to moderately steep slopes. Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard will be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and by avoiding skidding operations during unusually wet conditions.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep slope influences the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems in areas of this map unit. The poorly treated effluent may pollute ground water in the area. Because of the slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions, help evaluate the suitability for particular systems and help evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep slope of these soils impedes trafficability of heavy machinery and increases the cost of building roads and streets. Special designs may be necessary.

11E—Hinckley and Windsor soils, 25 to 50 percent slopes

Setting

This unit is on steep and very steep side slopes of glacial outwash plains and kames in the Mohawk Valley.

Map Unit Composition

Major Components

Hinckley: 45 percent
Windsor: 40 percent

Inclusions

Merrimac: 5 percent
Unadilla: 2 percent
Ninigret: 1 percent
Unnamed: 7 percent

Included in mapping are areas of Merrimac soils having a loamy mantle above a sandy substratum. Unadilla soils are included where there is a thick mantle of silt loam or very fine sandy loam above the sands. Also included are moderately well drained Ninigret soils in concave positions and along drainageways.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Hinckley: no
  Windsor: no
Hydrologic group:
  Hinckley: A
  Windsor: A

Soil Properties and Qualities

Hinckley
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Landform: outwash plains, kames, terraces
Parent material: sandy and gravelly outwash
Reaction (pH):
  0 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
  6 to 16 inches: extremely acid to moderately acid (3.5 to 6.0)
  16 to 20 inches: extremely acid to moderately acid (3.5 to 6.0)
  20 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
  0 to 6 inches: rapid (6 to 20 inches/hour)
  6 to 16 inches: rapid (6 to 20 inches/hour)
  16 to 20 inches: rapid (6 to 20 inches/hour)
  20 to 72 inches: very rapid (20 to 100 inches/hour)

Windsor
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, outwash plains, terraces
Parent material: sandy outwash
Reaction (pH):
  0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in $CaCl_2$)
  2 to 11 inches: very strongly acid to moderately acid (4.5 to 6.0)
  11 to 21 inches: very strongly acid to moderately acid (4.5 to 6.0)
  21 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
  25 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 11 inches: rapid (6 to 20 inches/hour)
11 to 21 inches: rapid (6 to 20 inches/hour)
21 to 25 inches: rapid (6 to 20 inches/hour)
25 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland

These soils are not suited to use as cropland because of the steep slope and erosion hazard.

Pasture

The steep slope restricts the use of most farm equipment for pasture maintenance. Avoiding overgrazing can reduce the hazard of erosion. Plants may also suffer moisture stress during the drier summer months because of the low available water capacity.

Woodland

- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help to reduce construction and maintenance limitations of haul roads due to steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The steep slope diminishes the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other less sloping sites should be considered for this use. The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems. Poorly treated effluent may pollute ground water in the area near the absorption field. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The steep slope of these soils impedes trafficability of heavy machinery and significantly increases the cost of building roads and streets. Special designs are necessary.

13F—Lansing and Mohawk soils, 25 to 50 percent slopes

Setting

This unit is on steep and very steep, severely eroded faces of till plains and drumlins in the Mohawk Valley (fig. 5).

Map Unit Composition

Major Components
Lansing: 50 percent
Mohawk: 30 percent

Inclusions
Galway: 5 percent
Palatine: 5 percent
Appleton: 2 percent
Unnamed: 8 percent

Included in mapping are small areas of Galway or Palatine soils where bedrock is within 40 inches of the surface. Also included are areas of somewhat poorly drained Appleton soils at the base of slopes.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7e

Figure 5.—Lansing and Mohawk soils were mapped together on the steep slopes of map unit 13F because of similar interpretations. Most areas of this map unit are limited to wildlife habitat and some forestry use. At the toeslope of map unit 13F is Hudson silty clay loam with a high available water capacity for growing productive hay.

Hydric soil rating:
- Lansing: no
- Mohawk: no

Hydrologic group:
- Lansing: B
- Mohawk: B

Soil Properties and Qualities

Lansing

Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 32 to 60 inches to densic material
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Landform: drumlinoid ridges, hills, till plains
Parent material: loamy till
Reaction (pH):
- 0 to 8 inches: strongly acid to neutral (5.1 to 7.3)
- 8 to 17 inches: strongly acid to neutral (5.1 to 7.3)
- 17 to 23 inches: strongly acid to neutral (5.1 to 7.3)
- 23 to 36 inches: strongly acid to neutral (5.1 to 7.3)
- 36 to 56 inches: strongly acid to neutral (5.1 to 7.3)
- 56 to 84 inches: neutral to moderately alkaline (6.6 to 8.4)

Permeability:
- 0 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 17 inches: moderate (0.6 to 2 inches/hour)
- 17 to 23 inches: moderate (0.6 to 2 inches/hour)
- 23 to 36 inches: moderate (0.6 to 2 inches/hour)
- 36 to 56 inches: moderate (0.6 to 2 inches/hour)
- 56 to 84 inches: slow (0.06 to 0.2 inches/hour)

Mohawk

Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 32 to 60 inches to densic material
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Landform: drumlinoid ridges, hills, till plains
Parent material: firm fine-loamy till
Reaction (pH):
- 0 to 9 inches: moderately acid to neutral (5.6 to 7.3)
- 9 to 17 inches: moderately acid to neutral (5.6 to 7.3)
- 17 to 23 inches: moderately acid to neutral (5.6 to 7.3)
- 23 to 35 inches: moderately acid to neutral (5.6 to 7.3)
- 35 to 43 inches: neutral or slightly alkaline (6.6 to 7.8)
- 43 to 53 inches: neutral to moderately alkaline (6.6 to 8.4)
- 53 to 80 inches: neutral to moderately alkaline (6.6 to 8.4)

Permeability:
0 to 9 inches: moderate (0.6 to 2 inches/hour)
9 to 17 inches: moderate (0.6 to 2 inches/hour)
17 to 23 inches: moderate (0.6 to 2 inches/hour)
23 to 35 inches: moderate (0.6 to 2 inches/hour)
35 to 43 inches: moderate (0.6 to 2 inches/hour)
43 to 53 inches: slow to moderate (0.06 to 2 inches/hour)
53 to 80 inches: slow to moderate (0.06 to 2 inches/hour)

Use and Management

Cropland

These soils are not suited to growing cultivated crops because of steep slope and severe erosion hazard.

Pasture

These soils are generally not suited to pasture. The steep and very steep slope impedes the use of most farm equipment for pasture maintenance. Overgrazing should be avoided to minimize erosion.

Woodland

- Construction of haul roads on slopes exceeding 35 percent is not recommended. Routing roads around these areas will reduce construction and maintenance costs.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions will help reduce the rutting hazard.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Steep and very steep slope seriously limits the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other soils should be considered for this use. Because of steep slope, onsite investigation is needed to determine the suitability of less sloping inclusions within this unit for specially designed systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The steep slope of these soils impedes trafficability of heavy machinery and increases the cost of building roads and streets. Special designs may be necessary. Roads should be routed around areas of this map unit to avoid costly construction and erosion control measures.

16E—Broadalbin loam, 25 to 40 percent slopes

Setting

This unit is on steep and very steep sides lopes of dissected till plains and drumlins in the Mohawk Valley. It has a fragipan or dense subsoil layer.

Map Unit Composition

Major Components
Broadalbin: 75 percent

Inclusions
Paxton: 9 percent
Charlton: 8 percent
Chatfield: 5 percent
Hollis: 2 percent
Woodbridge: 1 percent

Included in mapping are areas of Paxton and Woodbridge soils which lack fragipans in the subsoil, and are dense in the substratum. In some areas, Charlton soils are included where the soil is friable to more than 40 inches deep. Charlton and Hollis soils are less than 40 inches deep to bedrock.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6e
Hydric soil rating:
  Broadalbin: no
Hydrologic group:
  Broadalbin: C

Soil Properties and Qualities

Broadalbin
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 18 to 36 inches to a fragipan
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: drumlinoid ridges, till plains
Parent material: friable loamy eolian deposits over firm till
Reaction (pH):
  0 to 9 inches: strongly acid to slightly acid (5.1 to 6.5)
  9 to 17 inches: strongly acid to slightly acid (5.1 to 6.5)
  17 to 22 inches: strongly acid to slightly acid (5.1 to 6.5)
  22 to 36 inches: strongly acid to slightly acid (5.1 to 6.5)
  36 to 54 inches: strongly acid to slightly alkaline (5.1 to 7.8)
  54 to 69 inches: strongly acid to slightly alkaline (5.1 to 7.8)
  69 to 80 inches: strongly acid to slightly alkaline (5.1 to 7.8)
Permeability:
  0 to 9 inches: moderate (0.6 to 2 inches/hour)
  9 to 17 inches: moderate (0.6 to 2 inches/hour)
  17 to 22 inches: moderate (0.6 to 2 inches/hour)

22 to 36 inches: slow (0.06 to 0.2 inches/hour)
36 to 54 inches: slow (0.06 to 0.2 inches/hour)
54 to 69 inches: slow (0.06 to 0.2 inches/hour)
69 to 80 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland

This map unit is not suited to growing crops because of steep slope and severe erosion hazard.

Pasture

This unit is poorly suited to pasture. Steep slope inhibits the use of most farm equipment for maintaining pasture. Overgrazing should be avoided to minimize erosion.

Woodland

- Construction of haul roads on slopes exceeding 35 percent is not recommended. Routing roads around steep areas will reduce construction and maintenance costs. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will reduce construction and maintenance limitations of haul roads.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Steep and very steep slope seriously limits the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other soils should be considered for this use. Because of steep slope, onsite investigation is needed to determine the suitability of less sloping inclusions within this unit for specially designed systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The steep slope of this soil impedes trafficability of heavy machinery and increases the cost of building roads and streets. Special designs may be necessary. Roads should be routed around areas of this map unit to avoid costly construction and erosion control measures.

17D—Hollis-Rock outcrop complex, 3 to 25 percent slopes

Setting

This unit is along gently sloping to moderately steep ridges on bedrock controlled till plains in the Mohawk Valley. The Hollis soil is shallow to bedrock, mainly granite and gneiss.

Map Unit Composition

Major Components
Hollis: 60 percent
Rock outcrop: 15 percent

Inclusions
Chatfield: 8 percent
Charlton: 5 percent
Paxton: 5 percent
Woodbridge: 2 percent
Unnamed: 5 percent

Included in mapping are areas of moderately deep to bedrock Chatfield soils and very deep Charlton soils on side slopes below rock outcrops. Inclusions of Paxton and Woodbridge soils occur where the substratum is dense.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
- Hollis: no
- Rock outcrop: no

Hydrologic group:
- Hollis: D
- Rock outcrop: D

Soil Properties and Qualities

Hollis
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low to low
Potential frost action: moderate
Shrink-swell potential: low
Landform: hills, ridges
Parent material: a thin mantle of loamy till derived mainly from schist, granite, and gneiss
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 1 to 4 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 4 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 9 to 15 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 15 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 4 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 9 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 15 inches, bedrock

Use and Management

Cropland

This unit is not suited to growing cultivated crops because of the rock outcrops, shallow soil conditions, and moderately steep slopes.

Pasture

This unit is poorly suited to pasture because of common rock outcrops and low available water capacity. Erosion control is needed when pastures are renovated on moderately steep slopes. Rock outcrops may restrict the use of farm machinery during pasture renovation. Plants may suffer moisture stress during the drier summer months because of the low available water capacity.

Woodland

- Haul road construction and maintenance costs can be reduced on moderately steep areas of this unit by maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces. Locating haul roads on soils that are deeper to bedrock will help overcome shallow soil limitations.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Shallow bedrock causes difficult and costly excavation for basements and underground utilities. Excavation may be possible within deeper inclusions of this map unit. The moderately steep slope also causes difficult excavation. Special building practices and designs are required to ensure satisfactory performance of dwelling sites.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of shallow bedrock, this map unit is not suitable for conventional septic tank absorption fields. Use of alternative systems may be possible, especially in areas of deeper soil inclusions. Because of the moderately steep slope, special design and installation techniques are also needed to overcome this limitation. Onsite investigation will help to determine the suitability of this map unit for particular septic systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Shallow depth to bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental

drainage can help reduce these limitations. Moderately steep slope also impedes trafficability of heavy machinery and increases cost of building roads and streets. Special designs may be necessary.

18C—Chatfield-Hollis complex, 8 to 15 percent slopes, very rocky

Setting

This unit is on strongly sloping bedrock controlled till plains in the Mohawk Valley. Chatfield soil is moderately deep and Hollis soil is shallow to bedrock, mainly granite and gneiss.

Map Unit Composition

Major Components
Chatfield: 50 percent
Hollis: 30 percent

Inclusions
Rock outcrop: 5 percent
Charlton: 5 percent
Woodbridge: 2 percent
Tunbridge: 5 percent
Unnamed: 3 percent

Included in mapping are areas of very deep Charlton soils on side slopes below rock outcrops. Inclusions of moderately well drained Woodbridge soils occur where the substratum is dense. Small areas of moderately deep Tunbridge soils occur where significant development of spodic material occurs in the subsoil.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Chatfield: no
  Hollis: no
Hydrologic group:
  Chatfield: C
  Hollis: D

Soil Properties and Qualities

Chatfield
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: hills, ridges
Parent material: loamy till
Reaction (pH):
  0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)

3 to 7 inches: very strongly acid to moderately acid (4.5 to 6.0)
7 to 16 inches: very strongly acid to moderately acid (4.5 to 6.0)
16 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
25 inches, bedrock

Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
7 to 16 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
16 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
25 inches, bedrock

Hollis

Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low to low
Potential frost action: moderate
Shrink-swell potential: low
Landform: hills, ridges
Parent material: a thin mantle of loamy till overlying granite or gneiss bedrock.
Reaction (pH):
0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
1 to 4 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
4 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
9 to 15 inches: very strongly acid to moderately acid (4.5 to 6.0)
15 inches, bedrock

Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
4 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
15 inches, bedrock

Use and Management

Cropland

These soils are generally poorly suited to cultivated crops because of rock outcrops and shallow soil. Droughtiness is also a limitation in shallow soil areas. Erosion can also be a management concern on these strongly sloping areas. Establishing a cover crop, where possible, is a good management practice.

Pasture

This unit can provide fair pasture between rock outcrops and stones. Rock outcrops restrict use of some farm machinery during pasture renovation as well as limiting forage availability. Erosion control is needed when pastures are renovated. Plants may suffer moisture stress during the drier summer months because of the low available water capacity in shallow soil areas of this unit.

Woodland

- Locating haul roads on soils that are deeper to bedrock will help overcome shallow soil limitations.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees can help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic

salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Shallow bedrock causes difficult and costly excavation for basements and underground utilities. Excavation may be possible within deeper inclusions of this map unit. Strongly sloping soil also influences the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of shallow bedrock, these soils are not suitable for conventional septic tank absorption fields. Use of alternative systems may be possible, especially in areas of deeper soil inclusions. Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines. Onsite investigation is recommended to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Shallow depth to bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. The slope of these soils may impede trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

18D—Chatfield-Hollis complex, 15 to 35 percent slopes, very rocky

Setting

This unit is on moderately steep and steep areas of bedrock controlled till plains in the Mohawk Valley. Chatfield soil is moderately deep and Hollis soil is shallow to bedrock, mainly granite and gneiss.

Map Unit Composition

Major Components
Chatfield: 50 percent
Hollis: 30 percent

Inclusions
Rock outcrop: 5 percent
Charlton: 6 percent
Tunbridge: 4 percent
Unnamed: 5 percent

Included in mapping are areas of very deep Charlton soils on side slopes below rock outcrops. Small areas of moderately deep Tunbridge soils occur where significant development of spodic material occurs in the subsoil.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Chatfield: no
  Hollis: no
Hydrologic group:
  Chatfield: C
  Hollis: D

Soil Properties and Qualities

Chatfield
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: hills, ridges
Parent material: loamy till
Reaction (pH):
  0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in $CaCl_2$)
  1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in $CaCl_2$)
  3 to 7 inches: very strongly acid to moderately acid (4.5 to 6.0)
  7 to 16 inches: very strongly acid to moderately acid (4.5 to 6.0)
  16 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
  25 inches, bedrock
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  3 to 7 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  7 to 16 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  16 to 25 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  25 inches, bedrock

Hollis
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low to low
Potential frost action: moderate
Shrink-swell potential: low
Landform: hills, ridges
Parent material: a thin mantle of loamy till overlying granite or gneiss bedrock.
Reaction (pH):
  0 to 1 inches: ultra acid to strongly acid (1.8 to 5.5 in $CaCl_2$)
  1 to 4 inches: ultra acid to strongly acid (1.8 to 5.5 in $CaCl_2$)
  4 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
  9 to 15 inches: very strongly acid to moderately acid (4.5 to 6.0)
  15 inches, bedrock
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)

1 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
4 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
15 inches, bedrock

Use and Management

Cropland

This unit is not suited to growing cultivated crops because of the rock outcrops, shallow soil conditions, and moderately steep slopes.

Pasture

This unit is poorly suited to pasture because of rock outcrops and low available water capacity. Erosion control is needed when pastures are renovated on moderately steep slopes. Rock outcrops may restrict the use of farm machinery during pasture renovation. Plants may suffer moisture stress during the drier summer months because of the low available water capacity.

Woodland

- Haul road construction and maintenance costs can be reduced on moderately steep areas of this unit by maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces. Locating haul roads on soils that are deeper to bedrock will help overcome shallow soil limitations.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Shallow bedrock causes difficult and costly excavation for basements and underground utilities. Excavation may be possible within deeper inclusions of this map unit. The moderately steep slope also causes difficult excavation. Special building practices and designs are required to ensure satisfactory performance of dwelling sites.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of shallow bedrock, these soils are not suitable for conventional septic tank absorption fields. Use of alternative systems may be possible, especially in areas of deeper soil inclusions. Because of the moderately steep slope, special design and installation techniques are also needed to overcome this limitation. Onsite investigation will help to determine the suitability of these soils for particular septic systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Shallow depth to bedrock in areas of Hollis soil limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce these limitations. Moderately steep slope also impedes trafficability of heavy machinery and increases cost of building roads and streets. Special designs may be necessary.

21B—Galway loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping bedrock controlled till plains in the Mohawk Valley. These soils are moderately deep to limestone, dolomite, or calcareous sandstone bedrock.

Map Unit Composition

Major Components
Galway: 75 percent

Inclusions
Charlton: 8 percent
Farmington: 6 percent
Angola: 5 percent
Lansing: 3 percent
Unnamed: 3 percent

Included in mapping are areas of very deep to bedrock Charlton and Lansing soils. Shallow Farmington soils occur near bedrock ledges and benches. Inclusions of somewhat poorly drained Angola soils are in slightly concave positions.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
    Galway: no
Hydrologic group:
    Galway: C

Soil Properties and Qualities

Galway
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: benches, ridges, till plains
Parent material: loamy till
Reaction (pH):
    0 to 7 inches: moderately acid to neutral (5.6 to 7.3)
    7 to 16 inches: moderately acid to slightly alkaline (5.6 to 7.8)

16 to 27 inches: moderately acid to slightly alkaline (5.6 to 7.8)
27 inches, bedrock

Permeability:
0 to 7 inches: moderate (0.6 to 2 inches/hour)
7 to 16 inches: moderate (0.6 to 2 inches/hour)
16 to 27 inches: moderate (0.6 to 2 inches/hour)
27 inches, bedrock

Use and Management

Cropland

This map unit is among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. The growth of some deep-rooted crops may be restricted by bedrock. Grassed waterways can be used in some areas to slow and direct the movement of runoff water and reduce erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture

This soil is well suited to pasture. Erosion control may be needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

- Locating haul roads on deeper soils or maintaining minimal grades to reduce cut and fill on this soil will help overcome construction costs resulting from moderately deep soils.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Moderately deep bedrock can cause difficult excavation for basements and underground utilities. Less costly excavation may be possible within deeper inclusions of this unit.

Septic Tank Absorption Fields

Moderately deep bedrock may diminish the filtering capacity of this soil and impede proper installation of conventional septic systems. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater. The moderate to slow rate of fluid movement through this soil may impede the absorption and proper treatment of the effluent from septic systems. Onsite investigation is needed to determine the suitability of this soil for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Moderately deep bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce these limitations.

21C—Galway loam, 8 to 15 percent slopes

Setting

This unit is on strongly sloping bedrock controlled till plains in the Mohawk Valley. This soil is moderately deep to limestone, dolomite, or calcareous sandstone bedrock.

Map Unit Composition

Major Components
Galway: 75 percent

Inclusions
Farmington: 6 percent
Charlton: 5 percent
Chatfield: 5 percent
Angola: 4 percent
Unnamed: 5 percent

Included in mapping are areas of shallow Farmington soils near bedrock ledges and benches. Small areas of very deep Charlton and moderately deep Chatfield soils are included where subsoils are more acid. Inclusions of somewhat poorly drained Angola soils are in slightly concave positions.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
  Galway: no
Hydrologic group:
  Galway: C

Soil Properties and Qualities

Galway
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: benches, ridges
Parent material: loamy till
Reaction (pH):
  0 to 7 inches: moderately acid to neutral (5.6 to 7.3)
  7 to 16 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  16 to 27 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  27 inches, bedrock
Permeability:
  0 to 7 inches: moderate (0.6 to 2 inches/hour)
  7 to 16 inches: moderate (0.6 to 2 inches/hour)
  16 to 27 inches: moderate (0.6 to 2 inches/hour)
  27 inches, bedrock

Use and Management

Cropland

This unit is suited to growing most cultivated crops. The growth of some deep-rooted crops may be restricted by bedrock. A system of conservation tillage and planting cover crops are practices that can reduce the runoff rate and help to minimize soil loss by erosion.

Pasture

This map unit is well suited to pasture. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

- Locating haul roads on deeper soils or maintaining minimal grades to reduce cut and fill on this map unit will help overcome construction costs resulting from moderately deep soils.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Moderately deep bedrock can cause difficult excavation for basements and underground utilities. Less costly excavation may be possible within deeper inclusions of this unit. This strongly sloping unit makes it more difficult to operate machinery than on less sloping areas. Special building practices and designs may be required to ensure satisfactory performance of completed dwellings.

Septic Tank Absorption Fields

Moderately deep bedrock may diminish the filtering capacity of this soil and impede proper installation of conventional septic systems. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater. The moderate to slow rate of fluid movement through this soil may impede the absorption and proper treatment of the effluent from septic systems. Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines. Onsite investigation is needed to determine the suitability of this soil for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Moderately deep bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce these limitations. Strongly sloping areas can impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

22B—Georgia silt loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping till plains in the Mohawk Valley.

Map Unit Composition

Major Components
Georgia: 75 percent

Inclusions
Appleton: 5 percent
Lansing: 5 percent
Woodbridge: 5 percent
Galway: 3 percent
Unnamed: 7 percent

Included in mapping are areas of Lansing and Appleton soils which commonly have higher clay content in the subsoil. Small areas of Woodbridge soils occur where the densic material is less than 40 inches deep or the soil is slightly more acid in the substratum. Also included is moderately deep to bedrock Galway soils.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2w
Hydric soil rating:
    Georgia: no
Hydrologic group:
Georgia: B/D

Soil Properties and Qualities

Georgia
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 40 to 60 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: hills, till plains
Parent material: loamy till
Reaction (pH):
    0 to 8 inches: strongly acid to neutral (5.1 to 7.3)
    8 to 12 inches: strongly acid to neutral (5.1 to 7.3)
    12 to 18 inches: strongly acid to neutral (5.1 to 7.3)
    18 to 24 inches: strongly acid to slightly alkaline (5.1 to 7.8)
    24 to 32 inches: strongly acid to slightly alkaline (5.1 to 7.8)
    32 to 42 inches: strongly acid to slightly alkaline (5.1 to 7.8)
    42 to 60 inches: strongly acid to slightly alkaline (5.1 to 7.8)
Permeability:
    0 to 8 inches: moderate (0.6 to 2 inches/hour)
    8 to 12 inches: moderate (0.6 to 2 inches/hour)

12 to 18 inches: moderate (0.6 to 2 inches/hour)
18 to 24 inches: moderate (0.6 to 2 inches/hour)
24 to 32 inches: moderate (0.6 to 2 inches/hour)
32 to 42 inches: moderate (0.6 to 2 inches/hour)
42 to 60 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland

This map unit is among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland (fig. 6). Subsurface drainage in low areas may extend the period of planting and harvesting of crops.

Grassed waterways can be used in some areas to slow and direct the movement of runoff water and reduce erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Controlling traffic during wet periods can minimize soil compaction.

Pasture

This map unit is well suited to pasture. Erosion control may be needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion and minimize compaction.

Woodland

- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome seasonal wetness during construction of haul roads. Consult the Water Features table for months of seasonal saturation.
- Avoiding construction of log landings during wet periods, adequate design of drainage features such as diversion ditches and applying coarse-grained base

Figure 6.—The strips of grass and corn are helping to prevent soil erosion on this area within map unit 22B. Even though it meets the criteria for prime farmland in Fulton County, Georgia silt loam may benefit from subsurface drainage in some low areas or somewhat poorly drained inclusions. Well drained Lansing soils are in the distant field and steep slopes are beyond its tree line.

material will help overcome seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness.
- Rutting hazards can be minimized by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, designing skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of this map unit to bear a load without movement and causes seepage into basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table in some areas of this unit may limit the absorption and proper treatment of the effluent from septic systems. The depth to dense material may reduce the filtering capacity of this soil and may greatly increase the difficulty of proper installation of the effluent distribution lines. The moderate to slow rate of fluid movement through this soil may impede the absorption and proper treatment of the effluent from septic systems. Onsite investigation is needed to determine the suitability of this soil for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table may impede excavation and grading and reduce the bearing capacity of this soil. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce these limitations.

24B—Farmington loam, 2 to 8 percent slopes

Setting

This unit is on gently sloping, limestone bedrock controlled till plains in the Mohawk Valley. It is shallow to limestone, dolomite, or calcareous sandstone bedrock.

Map Unit Composition

Major Components

Farmington: 75 percent

Inclusions
Angola: 5 percent
Galway: 5 percent
Georgia: 5 percent
Unnamed: 10 percent

Included in mapping are areas of somewhat poorly drained Angola soils on slightly concave positions. Moderately deep Galway soils are included between benches and downslope from rock outcrops. Also included are very deep, moderately well drained Georgia soils on slightly concave positions and footslopes.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 3s
Hydric soil rating:
  Farmington: no
Hydrologic group:
  Farmington: D

Soil Properties and Qualities

Farmington
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: moderate
Shrink-swell potential: low
Landform: benches, ridges
Parent material: shallow loamy till
Reaction (pH):
  0 to 7 inches: strongly acid to neutral (5.1 to 7.3)
  7 to 13 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  13 inches, bedrock
Permeability:
  0 to 7 inches: moderate (0.6 to 2 inches/hour)
  7 to 13 inches: moderate (0.6 to 2 inches/hour)
  13 inches, bedrock

Use and Management

Cropland
This map unit is limited for growing cultivated crops because of a shallow rooting depth restricted by bedrock. Plants may suffer from moisture stress during drier summer months because of very low available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and minimize soil loss by erosion.

Pasture
This map unit is well suited to pasture. Plants may suffer moisture stress during the drier summer months because of very low available water capacity. Erosion control may be needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

- Most areas of this unit are shallow to bedrock. Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations due to shallow soil conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in this soil. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The shallow depth to bedrock and hardness of the bedrock greatly increase the difficulty of excavation for foundations and utilities. Less costly excavation may be possible within included areas or nearby deeper soils.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of the shallow depth to bedrock, this soil are very limited as a site for conventional septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions or nearby map units. Onsite investigation is needed to determine the suitability of this soil for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Shallow depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary. Local roads and streets also may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce these limitations.

24C—Farmington loam, 8 to 15 percent slopes

Setting

This unit is on strongly sloping, limestone bedrock controlled till plains in the Mohawk Valley. It is shallow to limestone, dolomite, or calcareous sandstone bedrock.

Map Unit Composition

Major Components
Farmington: 75 percent

Inclusions
Galway: 7 percent
Georgia: 6 percent
Angola: 2 percent
Unnamed: 10 percent

Included in mapping are areas of moderately deep Galway soils between benches and downslope from rock outcrops. Inclusions of very deep, moderately well drained Georgia soils occur on slightly concave positions and footslopes. Also, somewhat poorly drained Angola soils are included on slightly concave positions.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 3e
Hydric soil rating:
 Farmington: no
Hydrologic group:
 Farmington: D

Soil Properties and Qualities

Farmington
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: moderate
Shrink-swell potential: low
Landform: benches, ridges
Parent material: shallow loamy till
Reaction (pH):
 0 to 7 inches: strongly acid to neutral (5.1 to 7.3)
 7 to 13 inches: moderately acid to slightly alkaline (5.6 to 7.8)
 13 inches, bedrock
Permeability:
 0 to 7 inches: moderate (0.6 to 2 inches/hour)
 7 to 13 inches: moderate (0.6 to 2 inches/hour)
 13 inches, bedrock

Use and Management

Cropland
This soil is limited for growing cultivated crops because of a shallow rooting depth restricted by bedrock and strongly sloping conditions. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Plants may suffer from moisture stress during drier summer months because of shallow rooting depth and very low available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture
This soil is well suited to pasture. Because of strongly sloping conditions, erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion. Plants may suffer moisture stress during the drier summer months because of very low available water capacity.

Woodland
Most areas of this unit are shallow to bedrock. Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations due to shallow soils.
Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow

soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in this soil. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The shallow depth to bedrock and hardness of the bedrock greatly increase the difficulty of excavation for foundations and utilities. These strongly sloping areas are more difficult for machinery operation than on less sloping areas. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of the shallow depth to bedrock and strongly sloping conditions, this soil is very limited as a site for conventional septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions. The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of the effluent from septic systems. Onsite investigation is needed to determine the suitability of this soil for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary. Local roads and streets may also be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce these limitations. The slope of this soil may impede trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

25A—Wonsqueak-Colton-Rumney complex, 0 to 15 percent slopes

Setting

This nearly level to strongly sloping map unit occurs along major drainageways in the foothills of the Adirondack Mountains.

Map Unit Composition

Major Components

Wonsqueak: 35 percent
Colton: 25 percent
Rumney: 20 percent

Inclusions

Adams: 4 percent
Naumburg: 4 percent
Sabattis: 4 percent

Tughill: 2 percent
Adirondack: 1 percent
Unnamed: 5 percent

Included in mapping are areas of somewhat excessively drained Adams and somewhat poorly drained Naumburg soils along terraces dominated by sand. Small inclusions of Sabattis and Tughill soils occur in depressions along the interface with glacial till landforms. Also included are areas of somewhat poorly drained Adirondack soils on slightly higher positions above stream terraces.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7w
Hydric soil rating:
  Wonsqueak, ponded: yes
  Colton: no
  Rumney: yes
Hydrologic group:
  Wonsqueak, ponded: D
  Colton: A
  Rumney: B/D

Soil Properties and Qualities

Wonsqueak, ponded
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
  Water table kind: apparent
  Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: backswamps
Parent material: woody and herbaceous organic material over loamy till
Reaction (pH):
  0 to 9 inches: extremely acid to slightly acid (4.0 to 6.5 in $CaCl_2$)
  9 to 24 inches: extremely acid to slightly acid (4.0 to 6.5 in $CaCl_2$)
  24 to 44 inches: very strongly acid to slightly acid (4.5 to 6.5 in $CaCl_2$)
  44 to 72 inches: strongly acid to neutral (5.1 to 7.3)
Permeability:
  0 to 9 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  9 to 24 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  24 to 44 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  44 to 72 inches: moderately slow or moderate (0.2 to 2 inches/hour)

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low

Potential frost action: low
Shrink-swell potential: low
Landform: kame terraces
Parent material: sandy and gravelly glaciofluvial deposits
Reaction (pH):
  0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
  4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
  13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
  21 to 32 inches: extremely acid to moderately acid (3.5 to 6.0)
  32 to 80 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
  3 to 4 inches: rapid or very rapid (6 to 100 inches/hour)
  4 to 5 inches: rapid or very rapid (6 to 100 inches/hour)
  5 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
  13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
  21 to 32 inches: rapid or very rapid (6 to 100 inches/hour)
  32 to 80 inches: very rapid (20 to 100 inches/hour)

Rumney
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 18 inches
  Water table kind: apparent
Flooding: occasional
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: flood plains
Parent material: recent alluvium
Reaction (pH):
  0 to 8 inches: very strongly acid to neutral (4.5 to 7.3)
  8 to 12 inches: very strongly acid to neutral (4.5 to 7.3)
  12 to 16 inches: very strongly acid to neutral (4.5 to 7.3)
  16 to 34 inches: very strongly acid to neutral (4.5 to 7.3)
  34 to 39 inches: very strongly acid to neutral (4.5 to 7.3)
  39 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
0 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 12 inches: moderate (0.6 to 2 inches/hour)
12 to 16 inches: moderate (0.6 to 2 inches/hour)
16 to 34 inches: moderate (0.6 to 2 inches/hour)
34 to 39 inches: rapid or very rapid (6 to 100 inches/hour)
39 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Woodland

- Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads due to wetness. Consult the Water Features table for months of seasonal saturation.
- Areas of Wonsqueak soils with thick organic surfaces should be avoided when locating log landings.
- Limiting timber harvesting operations to winter months when the ground is frozen is recommended for soils like Wonsqueak with thick organic surfaces and low bearing strength. Selective harvesting systems that minimize canopy openings and reduce root system damage along with the maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species in areas of Wonsqueak and Rumney soils will help overcome seedling mortality limitations due to ponding or flooding. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Managing for more drought tolerant timber species in areas of Colton soils will help overcome seedling mortality limitations due to low water holding capacity in this map unit.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The Colton part of this unit is suitable for basement installation. However, because of the potential for ponding and subsidence in the Wonsqueak part of this unit, it is very limited as a site for dwellings with basements. Excavation can be restricted by the seasonal high water table in areas of Wonsqueak and Rumney soils. Intensive construction site development and maintenance may be needed. The potential for excessive subsidence in Wonsqueak soils severely limits its capacity to support a load without movement. This potential can cause cracking or collapsing foundations and basement walls. Potential for flooding on the Rumney part of this unit severely limits the capacity of these soils to bear a load without movement. Flooding may result in costly physical damage to buildings.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of ponding, Wonsqueak soils are not suitable to conventional septic tank absorption fields.

Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of the effluent from septic systems in most areas. Poorly treated effluent may pollute the water table. Probable flooding in areas of Rumney soils greatly limits the absorption and proper treatment of the effluent from septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

These soils are very limited for local roads and streets due to the potential for ponding, flooding, and subsidence. Seasonal ponding affects the ease of excavation and limits the bearing capacity of the soil. Special design of roads and bridges in flood prone areas is necessary. Subsidence of the organic material in Wonsqueak

soil reduces the load-bearing capacity of these soils. The addition of coarse-textured subgrade material and supplemental drainage may help to reduce these limitations.

25D—Farmington loam, 3 to 25 percent slopes, very rocky

Setting

This unit is on gently sloping to moderately steep, limestone bedrock controlled till plains in the Mohawk Valley. It is shallow to limestone, dolomite, or calcareous sandstone bedrock.

Map Unit Composition

Major Components
Farmington: 70 percent

Inclusions
Rock outcrop: 5 percent
Galway: 8 percent
Georgia: 5 percent
Angola: 2 percent
Unnamed: 10 percent

Included in mapping are areas of moderately deep Galway soils between benches and mostly downslope from rock outcrops. Inclusions of very deep, moderately well drained Georgia soils occur on slightly concave positions and footslopes. Also, somewhat poorly drained Angola soils are included on slightly concave positions and along drainageways.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Farmington, very rocky: no
Hydrologic group:
    Farmington, very rocky: D

Soil Properties and Qualities

Farmington, very rocky
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: moderate
Shrink-swell potential: low
Landform: benches, ridges
Parent material: shallow loamy till
Reaction (pH):
    0 to 7 inches: strongly acid to neutral (5.1 to 7.3)
    7 to 13 inches: moderately acid to slightly alkaline (5.6 to 7.8)
    13 inches, bedrock

Permeability:
- 0 to 7 inches: moderate (0.6 to 2 inches/hour)
- 7 to 13 inches: moderate (0.6 to 2 inches/hour)
- 13 inches, bedrock

Use and Management

Cropland

These shallow soils are not suited to cultivated crops because of rock outcrops and moderately steep areas. Bedrock outcrops are obstacles to cultivation, crop growth and good management practices (fig. 7). This unit tends to be subject to soil erosion because of slope and shallow conditions.

Pasture

Erosion control is needed on strongly sloping and moderately steep areas when pastures are renovated. Rock outcrops may restrict the use of some farm machinery during pasture renovation. Avoiding overgrazing can reduce the hazard of erosion. Plants may suffer moisture stress during the drier summer months because of low available water capacity.

Woodland

- Most areas of this unit are shallow to bedrock with common rock outcrops. Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations due to shallow soils. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to moderately steep slope. Practices that will help minimize erosion

Figure 7.—Rock outcrops are common in areas of map unit 25D. They are obstacles to machinery and may not sustain productive tree growth in adjacent shallow areas of Farmington soils.

include: carefully locating major skid trails prior to logging operations; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.

- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.
- Managing for drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in this soil. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The shallow depth to bedrock and hardness of the bedrock greatly increase the difficulty of excavation for foundations and utilities. The moderately steep slopes can limit the use of machinery and increase the cost of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of the shallow depth to bedrock and strongly sloping or moderately steep conditions, this soil is generally not suitable as a site for conventional septic tank absorption fields. Use of alternative systems may be possible in some areas, especially on deeper and less sloping soil inclusions. Onsite investigation is needed to determine the suitability of this soil for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Depth to hard bedrock significantly limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary. Moderately steep slope impedes trafficability of heavy machinery and increases the cost of building roads. Special designs may be necessary.

32B—Mohawk silt loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping till plains in the Mohawk Valley. This soil formed in till with a high component of black shale. It has a firm, dense substratum.

Map Unit Composition

Major Components

Mohawk: 75 percent

Inclusions

Manheim: 8 percent
Darien: 5 percent
Georgia: 5 percent
Palatine: 5 percent
Unnamed: 2 percent

Included in mapping are areas of somewhat poorly drained Manheim and Darien soils on slightly lower or concave positions. Moderately well drained Georgia soils are included in areas where there is less black shale in the subsoil. Also, Palatine soils are included where bedrock is moderately deep.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
    Mohawk: no
Hydrologic group:
    Mohawk: B

Soil Properties and Qualities

Mohawk
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 32 to 60 inches to densic material
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Landform: hills, till plains
Parent material: dark shaly till
Reaction (pH):
    0 to 9 inches: moderately acid to neutral (5.6 to 7.3)
    9 to 17 inches: moderately acid to neutral (5.6 to 7.3)
    17 to 23 inches: moderately acid to neutral (5.6 to 7.3)
    23 to 35 inches: moderately acid to neutral (5.6 to 7.3)
    35 to 43 inches: neutral or slightly alkaline (6.6 to 7.8)
    43 to 53 inches: neutral to moderately alkaline (6.6 to 8.4)
    53 to 80 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
    0 to 9 inches: moderate (0.6 to 2 inches/hour)
    9 to 17 inches: moderate (0.6 to 2 inches/hour)
    17 to 23 inches: moderate (0.6 to 2 inches/hour)
    23 to 35 inches: moderate (0.6 to 2 inches/hour)
    35 to 43 inches: moderate (0.6 to 2 inches/hour)
    43 to 53 inches: slow to moderate (0.06 to 2 inches/hour)
    53 to 80 inches: slow to moderate (0.06 to 2 inches/hour)

Use and Management

Cropland
This soil is among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland (fig. 8). Grassed waterways can be used in some areas to slow and direct the movement of surface water and reduce erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
This map unit is well suited to pasture. Erosion control may be needed when pastures are renovated. Avoiding overgrazing can help reduce erosion potential.

Figure 8.— Mohawk and Manheim soils are mapped in the lower section of this field. Map unit 32B, on the convex area to the right of the farm equipment, is considered prime farmland in Fulton County. Mohawk soils were formed from glacial till derived from the black calcareous shale bedrock of the Mohawk Valley.

Woodland

There are no major woodland management concerns with this unit.

Development

Erosion and sediment control may be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

There are no major limitations for this use.

Septic Tank Absorption Fields

The somewhat limited depth to dense material reduces the filtering capacity of this soil and may cause some difficulty in proper installation of the effluent distribution lines. The moderate to slow rate of fluid movement through this soil may impede the absorption and proper treatment of the effluent from septic systems. Onsite investigation is needed to determine the suitability of this soil for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material can help reduce this limitation.

32C—Mohawk silt loam, 8 to 15 percent slopes

Setting

This unit is on strongly sloping till plains in the Mohawk Valley. The soil formed in till with a high component of black shale. It has a firm, dense substratum.

Map Unit Composition

Major Components
Mohawk: 75 percent

Inclusions
Lansing: 7 percent
Manheim: 5 percent
Palatine: 5 percent
Georgia: 3 percent
Unnamed: 5 percent

Included in mapping are areas of well drained Lansing and moderately well drained Georgia soils in areas where there is less black shale in the subsoil. Small areas of somewhat poorly drained Manheim soils are included on slightly lower or concave positions. Also, Palatine soils are included where bedrock is moderately deep.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
  Mohawk: no
Hydrologic group:
  Mohawk: B

Soil Properties and Qualities

Mohawk
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 32 to 60 inches to densic material
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Landform: drumlinoid ridges, hills, till plains
Parent material: dark shaly till
Reaction (pH):
  0 to 9 inches: moderately acid to neutral (5.6 to 7.3)
  9 to 17 inches: moderately acid to neutral (5.6 to 7.3)
  17 to 23 inches: moderately acid to neutral (5.6 to 7.3)
  23 to 35 inches: moderately acid to neutral (5.6 to 7.3)
  35 to 43 inches: neutral or slightly alkaline (6.6 to 7.8)
  43 to 53 inches: neutral to moderately alkaline (6.6 to 8.4)
  53 to 80 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 9 inches: moderate (0.6 to 2 inches/hour)
  9 to 17 inches: moderate (0.6 to 2 inches/hour)

17 to 23 inches: moderate (0.6 to 2 inches/hour)
23 to 35 inches: moderate (0.6 to 2 inches/hour)
35 to 43 inches: moderate (0.6 to 2 inches/hour)
43 to 53 inches: slow to moderate (0.06 to 2 inches/hour)
53 to 80 inches: slow to moderate (0.06 to 2 inches/hour)

Use and Management

Cropland

This map unit is limited in growing cultivated crops because strongly sloping areas are more prone to soil erosion than less sloping areas. Using a system of conservation tillage and planting cover crops may reduce the surface runoff rate and help to minimize soil loss by erosion.

Pasture

This map unit is well suited to pasture. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads. Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Strongly sloping conditions can make machine operation and excavation more difficult than on less sloping nearby areas. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The somewhat limited depth to dense material reduces the filtering capacity of this soil and may cause some difficulty in proper installation of the effluent distribution lines. The moderate to slow rate of fluid movement through this soil may impede the absorption and proper treatment of the effluent from septic systems. Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines. Onsite investigation is needed to determine the suitability of this soil for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material can help reduce this limitation. Strongly sloping conditions can impede trafficability of heavy machinery and increase the cost of building roads. Placing roads on the contour can help overcome this limitation.

32D—Mohawk silt loam, 15 to 25 percent slopes

Setting

This unit is on moderately steep side slopes of till plains in the Mohawk Valley. They formed in till with a high component of black shale. It has a firm, dense substratum.

Map Unit Composition

Major Components
Mohawk: 75 percent

Inclusions
Lansing: 9 percent
Palatine: 6 percent
Georgia: 3 percent
Manheim: 1 percent
Unnamed: 6 percent

Included in mapping are areas of well drained Lansing and moderately well drained Georgia soils in areas where there is less black shale in the subsoil. Palatine soils are included where bedrock is moderately deep. Also, small areas of somewhat poorly drained Manheim soils are included on concave and base slope positions.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
  Mohawk: no
Hydrologic group:
  Mohawk: B

Soil Properties and Qualities

Mohawk
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 32 to 60 inches to densic material
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Landform: drumlinoid ridges, hills
Parent material: dark shaly till
Reaction (pH):
  0 to 9 inches: moderately acid to neutral (5.6 to 7.3)
  9 to 17 inches: moderately acid to neutral (5.6 to 7.3)
  17 to 23 inches: moderately acid to neutral (5.6 to 7.3)
  23 to 35 inches: moderately acid to neutral (5.6 to 7.3)
  35 to 43 inches: neutral or slightly alkaline (6.6 to 7.8)
  43 to 53 inches: neutral to moderately alkaline (6.6 to 8.4)
  53 to 80 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 9 inches: moderate (0.6 to 2 inches/hour)
  9 to 17 inches: moderate (0.6 to 2 inches/hour)

17 to 23 inches: moderate (0.6 to 2 inches/hour)
23 to 35 inches: moderate (0.6 to 2 inches/hour)
35 to 43 inches: moderate (0.6 to 2 inches/hour)
43 to 53 inches: slow to moderate (0.06 to 2 inches/hour)
53 to 80 inches: slow to moderate (0.06 to 2 inches/hour)

Use and Management

Cropland

Conventional cultivation should be avoided to deter serious erosion problems caused by moderately steep slopes. Using a system of conservation tillage and planting cover crops may reduce the surface runoff rate and help to minimize soil loss by erosion.

Pasture

Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

- Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to moderately steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and by avoiding skidding operations during unusually wet periods.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep slope can cause safety problems in the use of machinery and more difficult excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Because of the moderately steep slope, most areas of this soil should not be used for conventional septic tank absorption fields. Special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. The somewhat limited depth to dense material also reduces the filtering capacity of this soil and may make proper installation of the effluent distribution lines more difficult. Onsite investigation is needed to determine the suitability of this soil for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep slope of this soil impedes trafficability of heavy machinery and increases the cost of building roads. Special designs may be necessary. Placing roads on the contour can help overcome this limitation.

33B—Angola silt loam, 0 to 8 percent slopes

Setting

This unit is on nearly level and gently sloping, bedrock controlled till plains in the Mohawk Valley. It is underlain by bedrock consisting of shale, siltstone, or limy sandstone that is sometimes interbedded with limestone.

Map Unit Composition

Major Components
Angola: 75 percent

Inclusions
Galway: 7 percent
Darien: 5 percent
Ilion: 5 percent
Rhinebeck: 3 percent
Unnamed, moderately deep: 5 percent

Included in mapping are areas of well drained Galway soils on slightly more convex positions. Inclusions of Darien soils occur where the soil is greater than 40 inches deep. Poorly drained Ilion soils are included in depressions and along drainageways. Rhinebeck soils are included where the subsoil is more than 35 percent clay and with few or no rock fragments.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
    Angola: no
Hydrologic group:
    Angola: D

Soil Properties and Qualities

Angola
Drainage class: somewhat poorly drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: 6 to 32 inches
    Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Landform: bedrock controlled benches, bedrock controlled ridges, bedrock controlled till plains
Parent material: moderately deep till
Reaction (pH):
    0 to 10 inches: moderately acid to slightly alkaline (5.6 to 7.8)
    10 to 14 inches: moderately acid to slightly alkaline (5.6 to 7.8)
    14 to 24 inches: moderately acid to slightly alkaline (5.6 to 7.8)
    24 to 29 inches: moderately acid to slightly alkaline (5.6 to 7.8)
    29 to 32 inches: slightly acid to moderately alkaline (6.1 to 8.4)
    32 inches, bedrock

Permeability:
- 0 to 10 inches: moderate (0.6 to 2 inches/hour)
- 10 to 14 inches: slow (0.06 to 0.2 inches/hour)
- 14 to 24 inches: slow (0.06 to 0.2 inches/hour)
- 24 to 29 inches: slow (0.06 to 0.2 inches/hour)
- 29 to 32 inches: slow (0.06 to 0.2 inches/hour)
- 32 inches, bedrock

Use and Management

Cropland

Only drained areas of this map unit are considered to be prime farmland. Systematic subsurface drainage may extend the period of planting and harvesting of crops. Soil compaction can be minimized by controlling machine traffic during wet periods. The root system of some deep-rooted crops like alfalfa may be damaged by frost action or limited by depth to bedrock. Using a system of conservation tillage and planting cover crops can reduce the surface runoff rate and help to minimize soil loss by erosion.

Pasture

This map unit is well suited to pasture. Excess water should be removed or diverted from this area. Grass or legume species that are adapted to wet soil conditions should be planted. Erosion control may be needed when pastures are renovated. Avoiding overgrazing can also reduce the hazard of erosion.

Woodland

- The construction of haul roads is limited by seasonal wetness and to a lesser extent, moderately deep to bedrock conditions. Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome haul road construction limitations due to seasonal wetness. Consult the Water Features table for months of seasonal saturation. Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on this soil will help overcome construction limitations due to moderately deep soils.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Rutting hazard can be minimized or avoided by: restricting harvesting operations during months of seasonal saturation; logging when the ground is frozen; locating major skid trails and winching logs to them to reduce the skidder footprint; and using tracked skidders.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to wetness and moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

This moderately deep soil over hard bedrock can present excavation difficulty and higher costs for construction of foundations and utility installation. The seasonal high water table also limits the capacity of these soils to bear a load without movement. Special design of structures may be needed to prevent damage caused by wetness.

Septic Tank Absorption Fields

The seasonal high water table and moderately deep to bedrock conditions of these soils greatly limit the absorption and proper treatment of the effluent from conventional septic systems. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater. The restricted movement of fluids through these soils also limits the absorption and proper treatment of the effluent from septic systems. Installation of alternative systems may be necessary for properly developing this site. Onsite investigation is needed to determine the suitability of this soil for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads. The seasonal high water table may impede excavation and reduces the bearing capacity of this soil. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

34A—Manheim silt loam, 0 to 3 percent slopes

Setting

This unit is on nearly level till plains in the Mohawk Valley. The soil formed in till with a high component of black shale. It has a firm substratum.

Map Unit Composition

Major Components
Manheim: 80 percent

Inclusions
Darien: 8 percent
Ilion: 5 percent
Angola: 2 percent
Mohawk: 1 percent
Unnamed: 4 percent

Included in mapping are areas of somewhat poorly drained Darien and Ilion soils which commonly have less black shale fragments and more clay in the subsoil. Small areas of Angola soils occur where bedrock is moderately deep. Also, well drained Mohawk soils are included on slightly higher or more convex positions.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
 Manheim: no
Hydrologic group:
 Manheim: C/D

Soil Properties and Qualities

Manheim
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches

Depth to seasonal high water table: 10 to 18 inches
- Water table kind: apparent

Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: hills, till plains
Parent material: dark shaly till
Reaction (pH):
- 0 to 8 inches: moderately acid to neutral (5.6 to 7.3)
- 8 to 18 inches: moderately acid to neutral (5.6 to 7.3)
- 18 to 28 inches: moderately acid to neutral (5.6 to 7.3)
- 28 to 44 inches: moderately acid to neutral (5.6 to 7.3)
- 44 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)

Permeability:
- 0 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 18 inches: moderately slow (0.2 to 0.6 inches/hour)
- 18 to 28 inches: moderately slow (0.2 to 0.6 inches/hour)
- 28 to 44 inches: moderately slow (0.2 to 0.6 inches/hour)
- 44 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland

Only drained areas of this soil qualify as prime farmland. Systematic subsurface drainage may extend the period of planting and harvesting of crops. The root system of some deep-rooted crops may be damaged by frost action. Crop varieties that are tolerant to wetness should be considered for planting. Controlling machine traffic during wet periods can minimize soil compaction.

Pasture

This map unit is well suited to pasture. Excess water should be removed or diverted from this area. Grass or legume species that are adapted to wet soil conditions should be considered for planting. Avoiding overgrazing can reduce the hazard of erosion. Restricting grazing during wet periods can minimize compaction.

Woodland

- The construction of haul roads is limited by the seasonal high water table. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal saturation.
- Avoiding construction of log landings during periods of seasonal saturation; designing drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Harvest equipment operability is limited by wetness. This limitation can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen.
- Rutting hazard can be minimized by restricting harvesting operations during months of seasonal saturation; logging when the ground is frozen; carefully locating major skid trails and winching logs to them to reduce the skidder footprint; and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.

- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of this soil to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

Other sites should be considered for this use. The seasonal high water table and the moderate to slow rate of fluid movement through this soil may greatly impede the absorption and proper treatment of the effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of this soil for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table of this unit may slow excavation and grading and reduces the bearing capacity of this soil. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

34B—Manheim silt loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping till plains in the Mohawk Valley. The soil formed in till with a high component of black shale. It has a firm substratum.

Map Unit Composition

Major Components

Manheim: 80 percent

Inclusions

Darien: 7 percent
Ilion: 4 percent
Mohawk: 3 percent
Angola: 2 percent
Unnamed: 4 percent

Included in mapping are areas of somewhat poorly drained Darien and Ilion soils which commonly have less black shale fragments and more clay in the subsoil. Small areas of well drained Mohawk soils are included on slightly higher or more convex positions. Also, Angola soils occur where bedrock is moderately deep.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w

Hydric soil rating:
  Manheim: no
Hydrologic group:
  Manheim: C/D

Soil Properties and Qualities

Manheim
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 10 to 18 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: hills, till plains
Parent material: dark shaly till
Reaction (pH):
  0 to 8 inches: moderately acid to neutral (5.6 to 7.3)
  8 to 18 inches: moderately acid to neutral (5.6 to 7.3)
  18 to 28 inches: moderately acid to neutral (5.6 to 7.3)
  28 to 44 inches: moderately acid to neutral (5.6 to 7.3)
  44 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 18 inches: moderately slow (0.2 to 0.6 inches/hour)
  18 to 28 inches: moderately slow (0.2 to 0.6 inches/hour)
  28 to 44 inches: moderately slow (0.2 to 0.6 inches/hour)
  44 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland

Only drained areas of this soil qualify as prime farmland. Systematic subsurface drainage may extend the period of planting and harvesting of crops. The root system of some deep-rooted crops may be damaged by frost action. Crop varieties that are tolerant to wetness should be considered for planting. Grassed waterways can be used in some areas to slow and direct the movement of runoff water and reduce erosion. Using a system of conservation tillage and planting cover crops may also reduce the runoff rate.

Pasture

This soil is well suited to pasture. Excess water should be removed or diverted from this area. Grass or legume species that are adapted to wet soil conditions should be considered for planting. Avoiding overgrazing can reduce the hazard of erosion. Restricting grazing during wet periods can minimize compaction.

Woodland

- The construction of haul roads is limited by the seasonal high water table. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal saturation.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying

coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Harvest equipment operability is limited by wetness. This limitation can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen.
- Rutting hazard can be minimized by restricting harvesting operations during months of seasonal saturation; logging when the ground is frozen; carefully locating major skid trails and winching logs to them to reduce the skidder footprint; and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of this soil to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

Other sites should be considered for this use. The seasonal high water table and the moderate to slow rate of fluid movement through this soil may greatly impede the absorption and proper treatment of the effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of this soil for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table of this unit may slow excavation and grading and reduces the bearing capacity of this soil. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

42B—Lansing loam, 2 to 8 percent slopes

Setting

This unit is on gently sloping till plains and on crests of drumlins in the Mohawk Valley. It has a firm, dense substratum.

Map Unit Composition

Major Components
Lansing: 75 percent

Inclusions
Appleton: 7 percent

Mohawk: 5 percent
Manheim: 5 percent
Georgia: 3 percent
Churchville: 1 percent
Galway: 1 percent
Unnamed: 3 percent

Included in mapping are areas of somewhat poorly drained Appleton soils on slightly concave areas, on footslopes and along drainageways. Inclusions of Mohawk and Manheim soils occur where the subsoil is darker colored due to the presence of black shale in the parent material. Included areas of Georgia soils occur where the subsoil has less clay. Some small areas of Churchville soils occur where a thick clayey mantle overlies loamy till. Also included are areas of moderately deep to bedrock Galway soils.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
  Lansing: no
Hydrologic group:
  Lansing: B

Soil Properties and Qualities

Lansing
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 32 to 60 inches to densic material
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Landform: drumlinoid ridges, hills, till plains
Parent material: loamy till
Reaction (pH):
  0 to 8 inches: strongly acid to neutral (5.1 to 7.3)
  8 to 17 inches: strongly acid to neutral (5.1 to 7.3)
  17 to 23 inches: strongly acid to neutral (5.1 to 7.3)
  23 to 36 inches: strongly acid to neutral (5.1 to 7.3)
  36 to 56 inches: strongly acid to neutral (5.1 to 7.3)
  56 to 84 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 17 inches: moderate (0.6 to 2 inches/hour)
  17 to 23 inches: moderate (0.6 to 2 inches/hour)
  23 to 36 inches: moderate (0.6 to 2 inches/hour)
  36 to 56 inches: moderate (0.6 to 2 inches/hour)
  56 to 84 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland
This soil is among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Using a system of conservation tillage and planting cover crops will minimize soil loss by water erosion.

Pasture

This soil is well suited to pasture. Erosion control may be needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

There are no major woodland management limitations on this unit.

Development

Erosion and sediment control may be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

There are no major soil limitations for this use.

Septic Tank Absorption Fields

The somewhat limited depth to dense material may reduce the filtering capacity of this soil and may cause some difficulty in proper installation of the effluent distribution lines. The moderate to slow rate of fluid movement through this soil may impede the absorption and proper treatment of the effluent from septic systems. Onsite investigation is needed to determine the suitability of this soil for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material can help reduce this limitation.

42C—Lansing loam, 8 to 15 percent slopes

Setting

This unit is on strongly sloping side slopes of till plains and drumlins in the Mohawk Valley. It has a firm, dense substratum.

Map Unit Composition

Major Components

Lansing: 80 percent

Inclusions

Georgia: 7 percent
Appleton: 5 percent
Mohawk: 3 percent
Manheim: 2 percent
Galway: 1 percent
Unnamed: 2 percent

Included in mapping are areas of Georgia soils where the subsoil has less clay. Included areas of somewhat poorly drained Appleton soils occur on slightly concave areas, on footslopes and along drainageways. Inclusions of Mohawk and Manheim soils occur where the subsoil is darker colored due to the presence of black shale in the parent material. Also included are areas of moderately deep to bedrock Galway soils.

Interpretive Groups

Farmland class: farmland of statewide importance

Land capability classification: 3e
Hydric soil rating:
Lansing: no
Hydrologic group:
Lansing: B

Soil Properties and Qualities

Lansing
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 32 to 60 inches to densic material
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Landform: drumlinoid ridges, hills, till plains
Parent material: loamy till
Reaction (pH):
0 to 8 inches: strongly acid to neutral (5.1 to 7.3)
8 to 17 inches: strongly acid to neutral (5.1 to 7.3)
17 to 23 inches: strongly acid to neutral (5.1 to 7.3)
23 to 36 inches: strongly acid to neutral (5.1 to 7.3)
36 to 56 inches: strongly acid to neutral (5.1 to 7.3)
56 to 84 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
0 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 17 inches: moderate (0.6 to 2 inches/hour)
17 to 23 inches: moderate (0.6 to 2 inches/hour)
23 to 36 inches: moderate (0.6 to 2 inches/hour)
36 to 56 inches: moderate (0.6 to 2 inches/hour)
56 to 84 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland
This strongly sloping unit is limited to growing cultivated crops because of a moderate erosion hazard. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
This soil is well suited to pasture. Erosion control is needed when pastures are renovated. Avoiding overgrazing can help to reduce the hazard of erosion.

Woodland
Installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads. Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.

Development
Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control

structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

This strongly sloping unit may present some safety issues and cost more during excavation and construction than on less sloping areas. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The somewhat limited depth to dense material may reduce the filtering capacity of this soil and may increase the difficulty of proper installation of the effluent distribution lines. The moderate to slow rate of fluid movement through this soil may impede the absorption and proper treatment of the effluent from septic systems. Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines. Onsite investigation is needed to determine the suitability of this soil for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

The slope of this soil may impede trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

42D—Lansing loam, 15 to 25 percent slopes

Setting

This unit is on moderately steep side slopes of till plains and drumlins in the Mohawk Valley. It has a firm, dense substratum.

Map Unit Composition

Major Components
Lansing: 80 percent

Inclusions
Georgia: 5 percent
Mohawk: 4 percent
Appleton: 1 percent
Galway: 1 percent
Manheim: 1 percent
Unnamed: 8 percent

Included in mapping are areas of Georgia soils where the subsoil has less clay. Inclusions of Mohawk and Manheim soils occur where the subsoil is darker colored due to the presence of black shale in the parent material. Included areas of somewhat poorly drained Appleton soils occur on footslopes and along drainageways. Also included are areas of moderately deep to bedrock Galway soils.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
  Lansing: no

Hydrologic group:
Lansing: B

Soil Properties and Qualities

Lansing
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 32 to 60 inches to densic material
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Landform: drumlinoid ridges, hills, till plains
Parent material: loamy till
Reaction (pH):
0 to 8 inches: strongly acid to neutral (5.1 to 7.3)
8 to 17 inches: strongly acid to neutral (5.1 to 7.3)
17 to 23 inches: strongly acid to neutral (5.1 to 7.3)
23 to 36 inches: strongly acid to neutral (5.1 to 7.3)
36 to 56 inches: strongly acid to neutral (5.1 to 7.3)
56 to 84 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
0 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 17 inches: moderate (0.6 to 2 inches/hour)
17 to 23 inches: moderate (0.6 to 2 inches/hour)
23 to 36 inches: moderate (0.6 to 2 inches/hour)
36 to 56 inches: moderate (0.6 to 2 inches/hour)
56 to 84 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland

This moderately steep unit is poorly suited to growing cultivated crops because of potential soil erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture

This unit is subject to erosion because of moderately steep areas. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

- The moderately steep slopes cause construction and maintenance limitations. These limitations can be reduced by maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads and reseeding bare surfaces. Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be reduced by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep slope causes safety concerns when operating construction machinery and generally increases excavation costs as well. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

This unit is very limited because of moderately steep slope. Other sites should be considered on less sloping inclusions or nearby soils. Because of the slope, conventional septic tank absorption fields will not function properly. This site will require a specially designed system and installation will be more costly. Onsite investigation is needed to determine the suitability of this soil for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep slope of this unit impedes trafficability of heavy machinery and increases the cost of building roads compared to less sloping areas. Special designs may be necessary. Local roads and streets may be damaged by frost action as well, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce these limitations.

44A—Appleton silt loam, 0 to 3 percent slopes

Setting

This unit is on nearly level till plains and on crests of large drumlins in the Mohawk Valley. It has a very firm substratum.

Map Unit Composition

Major Components
Appleton: 80 percent

Inclusions
Ilion: 7 percent
Georgia: 5 percent
Tonawanda: 4 percent
Lansing: 2 percent
Manheim: 2 percent

Included in mapping are areas of poorly drained Ilion soils in depressions and along drainageways. Included areas of Georgia soils occur where the subsoil has less clay. Some small areas of Tonawanda soils occur where the soil is mainly silt loam or very fine sandy loam. On small knolls or convex areas, the well drained Lansing soils are included. Also, inclusions of Manheim soils occur where the subsoil is darker colored due to the presence of black shale in the parent material.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w

Hydric soil rating:
    Appleton: no
Hydrologic group:
    Appleton: C/D

Soil Properties and Qualities

Appleton
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 6 to 18 inches
    Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Landform: drumlins, till plains
Parent material: loamy subglacial till
Reaction (pH):
    0 to 8 inches: moderately acid to neutral (5.6 to 7.3)
    8 to 15 inches: moderately acid to slightly alkaline (5.6 to 7.8)
    15 to 24 inches: moderately acid to slightly alkaline (5.6 to 7.8)
    24 to 32 inches: moderately acid to slightly alkaline (5.6 to 7.8)
    32 to 72 inches: slightly alkaline or moderately alkaline (7.4 to 8.4)
Permeability:
    0 to 8 inches: moderate (0.6 to 2 inches/hour)
    8 to 15 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
    15 to 24 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
    24 to 32 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
    32 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland

Only drained areas of this unit qualify for prime farmland. Systematic subsurface drainage can extend the period of planting and harvesting of crops. The root system of some deep-rooted crops may be damaged by frost action. Planting adapted species can minimize the root damage caused by frost action. Controlling traffic during wet periods can minimize soil compaction.

Pasture

This map unit is well suited to pasture. Excess water should be removed or diverted from this area. Grass or legume species that are adapted to wet soil conditions should be considered for planting. Restricting grazing during wet periods can minimize compaction. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

- The construction of haul roads is limited by seasonal wetness. Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches and maintaining grades of 3 to 10 percent will help overcome seasonal wetness. Consult the Water Features table for months of seasonal saturation.
- Seasonal wetness of this soil limits use as log landings. Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome wetness limitations. Riparian setbacks should be at least 200 feet.

- Avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness. The rutting hazard can be reduced by restricting harvesting operations during seasonal wetness; logging when the ground is frozen; carefully locating major skid trails and winching logs to them to reduce the skidder footprint and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of this soil to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through this soil greatly limits the absorption and proper treatment of the effluent from conventional septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field. Onsite investigation is needed to determine the suitability of this soil for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of this soil. Local roads and streets may also be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

44B—Appleton silt loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping till plains and on crests of large drumlins in the Mohawk Valley. It has a very firm substratum (fig. 9).

Map Unit Composition

Major Components
Appleton: 80 percent

Inclusions
Georgia: 6 percent
Ilion: 5 percent
Lansing: 3 percent

Figure 9.—Map unit 44B, Appleton silt loam, has moderately slow or slow permeability in the subsoil and substratum. Its permeability and texture make it feasible for manure storage; however, it has a seasonal high water table that must be considered for proper use.

Photo taken by Harold Wheeler, Conservation Education Coordinator, Fulton County Soil and Water Conservation District.

Manheim: 3 percent
Tonawanda: 3 percent

Included in mapping are areas of Georgia soils where the subsoil has less clay. Included areas of poorly drained Ilion soils occur in depressions and along drainageways. On small knolls or convex areas, the well drained Lansing soils are included. Inclusions of Manheim soils occur where the subsoil is darker colored due to the presence of black shale in the parent material. Also, some small areas of Tonawanda soils occur where the soil is mainly silt loam or very fine sandy loam.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
  Appleton: no
Hydrologic group:
  Appleton: C/D

Soil Properties and Qualities

Appleton
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches

Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 6 to 18 inches
    Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Landform: drumlins, till plains
Parent material: loamy subglacial till
Reaction (pH):
    0 to 8 inches: moderately acid to neutral (5.6 to 7.3)
    8 to 15 inches: moderately acid to slightly alkaline (5.6 to 7.8)
    15 to 24 inches: moderately acid to slightly alkaline (5.6 to 7.8)
    24 to 32 inches: moderately acid to slightly alkaline (5.6 to 7.8)
    32 to 72 inches: slightly alkaline or moderately alkaline (7.4 to 8.4)
Permeability:
    0 to 8 inches: moderate (0.6 to 2 inches/hour)
    8 to 15 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
    15 to 24 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
    24 to 32 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
    32 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland

Only drained areas of this unit qualify for prime farmland. Systematic subsurface drainage can extend the period of planting and harvesting of crops. The root system of some deep-rooted crops may be damaged by frost action. Planting adapted species can minimize the root damage caused by frost action. Controlling traffic during wet periods can minimize soil compaction. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.

Pasture

This map unit is well suited to pasture. Excess water should be removed or diverted from this area. Grass or legume species that are adapted to wet soil conditions should be considered for planting. Avoiding overgrazing can reduce the hazard of erosion. Erosion control may be needed when pastures are renovated. Planting adapted species can minimize the root damage caused by frost action.

Woodland

- The construction of haul roads is limited by seasonal wetness. Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome seasonal wetness. Consult the Water Features table for months of seasonal saturation.
- Seasonal wetness of this soil limits use as log landings. Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome wetness limitations. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness. Rutting hazard can be reduced by restricting harvesting operations during seasonal wetness; logging when the ground is frozen; carefully locating major skid trails and winching logs to them to reduce the skidder footprint and using tracked skidders.

- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of this soil to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through this soil greatly limits the absorption and proper treatment of the effluent from conventional septic systems. Costly measures may be needed to lower the water table around the absorption field, or to raise the absorption field. Onsite investigation is needed to determine the suitability of this soil for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may also be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

47A—Ilion silt loam, 0 to 3 percent slopes

Setting

This unit is on nearly level depressions on till plains in the Mohawk Valley.

Map Unit Composition

Major Components
Ilion: 80 percent

Inclusions
Madalin: 8 percent
Appleton: 4 percent
Fonda: 2 percent
Manheim: 2 percent
Unnamed: 4 percent

Included in mapping are areas of Madalin and Fonda soils which were formed in lacustrine clay and silt and have fewer rock fragments than Ilion soils. Small areas of somewhat poorly drained Appleton and Manheim soils occur on slightly higher positions and lack redox features in the topsoil.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4w
Hydric soil rating:
Ilion: yes
Hydrologic group:
Ilion: C/D

Soil Properties and Qualities

Ilion
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Landform: depressions
Parent material: calcareous loamy till
Reaction (pH):
0 to 7 inches: moderately acid to neutral (5.6 to 7.3)
7 to 13 inches: moderately acid to neutral (5.6 to 7.3)
13 to 21 inches: moderately acid to slightly alkaline (5.6 to 7.8)
21 to 37 inches: moderately acid to slightly alkaline (5.6 to 7.8)
37 to 72 inches: slightly alkaline or moderately alkaline (7.4 to 8.4)
Permeability:
0 to 7 inches: moderately slow or moderate (0.2 to 2 inches/hour)
7 to 13 inches: moderately slow or moderate (0.2 to 2 inches/hour)
13 to 21 inches: very slow or slow (0.03 to 0.2 inches/hour)
21 to 37 inches: very slow or slow (0.03 to 0.2 inches/hour)
37 to 72 inches: very slow or slow (0.03 to 0.2 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland

This soil is poorly suited to growing cultivated crops because of a seasonal high water table. The root system of some deep-rooted crops may be damaged by frost action. Controlling traffic during wet periods can minimize soil compaction.

Pasture

This soil is poorly suited to pasture because of the seasonal high water table. Grass or legume species that are adapted to wet soil conditions should be encouraged in existing pastures. Restricting grazing during wet periods can minimize compaction and damage to forage species.

Woodland

- The construction of haul roads is very limited by the seasonal high water table on this unit. Locating roads on better drained soils or limiting road construction to drier parts of the year may help overcome construction limitations caused by wetness. Consult the Water Features table for months of seasonal saturation.

- Areas of poorly drained and very poorly drained soils should be avoided when locating log landings.
- Rutting can be minimized by restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint and using tracked skidders. Consult the Water Features table for months of seasonal saturation.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species. Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Development

Erosion and sediment control may be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The seasonal high water table severely limits the capacity of this soil to bear a load without movement. Also, the seasonal high water table will seriously limit the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

Other sites should be considered for this use. The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems. The moderate to slow rate of fluid movement through this soil impedes absorption and proper treatment of the effluent from septic systems.

Local Roads and Streets

The seasonal high water table impedes excavation and grading during most of the year and reduces the bearing capacity of this soil. Local roads and streets can be damaged by frost action, which is caused by the freezing and thawing of soil moisture. Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, this soil should not be used for base material. The addition of coarse-textured subgrade material and adequate drainage can help to alleviate these limitations.

47B—Ilion silt loam, 3 to 8 percent slopes

Setting

This unit is along gently sloping drainageways near depressions on till plains in the Mohawk Valley.

Map Unit Composition

Major Components

Ilion: 80 percent

Inclusions

Appleton: 7 percent

Madalin: 5 percent
Fonda: 2 percent
Manheim: 2 percent
Unnamed: 4 percent

Included in mapping are areas of somewhat poorly drained Appleton and Manheim soils on slightly higher positions lacking redox features in the topsoil. Also included are small areas of Madalin and Fonda soils which were formed in lacustrine clay and silt and have fewer rock fragments than Ilion soils.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4w
Hydric soil rating:
  Ilion: yes
Hydrologic group:
  Ilion: C/D

Soil Properties and Qualities

Ilion
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Landform: depressions
Parent material: calcareous loamy till
Reaction (pH):
  0 to 7 inches: moderately acid to neutral (5.6 to 7.3)
  7 to 13 inches: moderately acid to neutral (5.6 to 7.3)
  13 to 21 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  21 to 37 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  37 to 72 inches: slightly alkaline or moderately alkaline (7.4 to 8.4)
Permeability:
  0 to 7 inches: moderately slow or moderate (0.2 to 2 inches/hour)
  7 to 13 inches: moderately slow or moderate (0.2 to 2 inches/hour)
  13 to 21 inches: very slow or slow (0.03 to 0.2 inches/hour)
  21 to 37 inches: very slow or slow (0.03 to 0.2 inches/hour)
  37 to 72 inches: very slow or slow (0.03 to 0.2 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
This soil is poorly suited to growing cultivated crops because of a seasonal high water table. The root system of some deep-rooted crops may be damaged by frost action. Controlling traffic during wet periods can minimize soil compaction. Using cover crops on field can reduce the surface runoff rate and help to minimize soil loss

by erosion. Grassed waterways can be used in existing fields to slow and direct the movement of water and reduce erosion.

Pasture

This soil is poorly suited to pasture because of the seasonal high water table. Grass or legume species that are adapted to wet soil conditions should be encouraged in existing pastures. Restricting grazing during wet periods can minimize compaction and damage to forage species. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

- The construction of haul roads is very limited by the seasonal high water table on this unit. Locating roads on better drained soils or limiting road construction to drier parts of the year may help overcome construction limitations caused by wetness. Consult the Water Features table for months of seasonal saturation.
- Areas of poorly drained and very poorly drained soils should be avoided when locating log landings.
- Rutting can be minimized by restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint and using tracked skidders. Consult the Water Features table for months of seasonal saturation.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species. Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The seasonal high water table severely limits the capacity of this soil to bear a load without movement. Also, the seasonal high water table will seriously limit the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

Other sites should be considered for this use. The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems. The moderate to slow rate of fluid movement through this soil impedes absorption and proper treatment of the effluent from septic systems.

Local Roads and Streets

The seasonal high water table impedes excavation and grading during most of the year and reduces the bearing capacity of this soil. Local roads and streets can be damaged by frost action, which is caused by the freezing and thawing of soil moisture. Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, this soil should not be used for base material. The addition of coarse-textured subgrade material and adequate drainage can help to alleviate these limitations.

49A—Fonda mucky silt loam, 0 to 1 percent slopes

Setting

This soil is on level or nearly level glacial lake plains and in depressions on till plains in the Mohawk Valley.

Map Unit Composition

Major Components
Fonda: 75 percent

Inclusions
Ilion: 7 percent
Madalin: 5 percent
Rhinebeck: 5 percent
Churchville: 4 percent
Timakwa: 4 percent

Included in mapping are areas of poorly drained Ilion soils which have more rock fragments and less clay in the subsoil compared to Fonda soils. Inclusions of poorly drained Madalin soils and somewhat poorly drained Rhinebeck soils are on slightly higher positions and average less than 10 percent organic matter in the A horizon. Small areas of somewhat poorly drained Churchville soils have loamy till substrata. Also included are Timakwa soils where organic deposits are deeper than 16 inches.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
  Fonda: yes
Hydrologic group:
  Fonda: C/D

Soil Properties and Qualities

Fonda
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
  Water table kind: apparent
  Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Landform: depressions
Parent material: clayey glaciolacustrine deposits
Reaction (pH):
  0 to 6 inches: slightly acid or neutral (6.1 to 7.3)
  6 to 12 inches: slightly acid to moderately alkaline (6.1 to 8.4)
  12 to 40 inches: slightly acid to moderately alkaline (6.1 to 8.4)
  40 to 46 inches: slightly alkaline or moderately alkaline (7.4 to 8.4)
  46 to 54 inches: slightly alkaline or moderately alkaline (7.4 to 8.4)
  54 to 60 inches: slightly alkaline or moderately alkaline (7.4 to 8.4)

Permeability:
- 0 to 6 inches: moderate (0.6 to 2 inches/hour)
- 6 to 12 inches: slow (0.06 to 0.2 inches/hour)
- 12 to 40 inches: slow (0.06 to 0.2 inches/hour)
- 40 to 46 inches: very slow or slow (0.001 to 0.2 inches/hour)
- 46 to 54 inches: very slow or slow (0.001 to 0.2 inches/hour)
- 54 to 60 inches: very slow or slow (0.001 to 0.2 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland

This map unit is not suited to growing cultivated crops due to ponding and a seasonal high water table.

Pasture

This map unit is poorly suited to pasture due to ponding.

Woodland

- The construction of haul roads is very limited by the seasonal high water table on this unit. Locating roads on better drained soils or limiting road construction to drier parts of the year may help overcome construction limitations caused by wetness. Limiting construction activities to dry or frozen ground conditions will help overcome construction limitations of haul roads due to clayey soils. Consult the Water Features table for months of seasonal saturation.
- This soul is subject to ponding and therefore, should be avoided when locating log landings.
- Avoiding timber harvesting during months of seasonal saturation or harvesting during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness and clayey soils.
- Rutting can be minimized by restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint and using tracked skidders. Consult the Water Features table for months of seasonal saturation.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to ponding or flooding. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

Other better drained sites should be considered for this use. Because of the potential for ponding, this soil is generally not suitable as a site for dwellings with basements. The period when excavations can take place is very limited as well.

Septic Tank Absorption Fields

Other better drained sites should be considered for this use. Because of ponding and clayey conditions, this soil is not suitable as a site for septic tank absorption fields.

Local Roads and Streets

This map unit is very limited for local roads and streets due to the potential for ponding. Seasonal wetness and ponding causes difficulty in excavation and grading and limits the bearing capacity of the soil.

Local roads and streets may be damaged by frost action as well, which is caused by the freezing and thawing of soil moisture. Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, this soil should not be used for base material. The addition of coarse-textured subgrade material and adequate drainage can help to alleviate these limitations.

72B—Broadalbin fine sandy loam, 2 to 8 percent slopes

Setting

This unit is on gently sloping till plains and on the crests of drumlins in the Mohawk Valley. It has a fragipan or dense subsoil layer.

Map Unit Composition

Major Components
Broadalbin, well drained: 50 percent
Broadalbin, moderately well drained: 30 percent

Inclusions
Mosherville: 5 percent
Paxton: 5 percent
Woodbridge: 5 percent
Charlton: 4 percent
Palatine: 1 percent

Included in mapping are areas of somewhat poorly drained Mosherville soils on slightly concave areas and along drainageways. Paxton and Woodbridge soils are included but lack a fragipan subsoil above a dense substratum. Charlton soils commonly lack a fragipan or other root restrictive layers. Palatine soils have dark shale bedrock within 40 inches of the surface.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
  Broadalbin, well drained: no
  Broadalbin, moderately well drained: no
Hydrologic group:
  Broadalbin, well drained: C
  Broadalbin, moderately well drained: D

Soil Properties and Qualities

Broadalbin, well drained
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 18 to 36 inches to a fragipan
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: drumlinoid ridges, till plains
Parent material: friable loamy eolian deposits over firm till

Reaction (pH):
- 0 to 9 inches: strongly acid to slightly acid (5.1 to 6.5)
- 9 to 17 inches: strongly acid to slightly acid (5.1 to 6.5)
- 17 to 22 inches: strongly acid to slightly acid (5.1 to 6.5)
- 22 to 36 inches: strongly acid to slightly acid (5.1 to 6.5)
- 36 to 54 inches: strongly acid to slightly alkaline (5.1 to 7.8)
- 54 to 69 inches: strongly acid to slightly alkaline (5.1 to 7.8)
- 69 to 80 inches: strongly acid to slightly alkaline (5.1 to 7.8)

Permeability:
- 0 to 9 inches: moderate (0.6 to 2 inches/hour)
- 9 to 17 inches: moderate (0.6 to 2 inches/hour)
- 17 to 22 inches: moderate (0.6 to 2 inches/hour)
- 22 to 36 inches: slow (0.06 to 0.2 inches/hour)
- 36 to 54 inches: slow (0.06 to 0.2 inches/hour)
- 54 to 69 inches: slow (0.06 to 0.2 inches/hour)
- 69 to 80 inches: slow (0.06 to 0.2 inches/hour)

Broadalbin, moderately well drained

Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 18 to 36 inches to a fragipan
Depth to seasonal high water table: 18 to 32 inches
- Water table kind: perched

Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: drumlinoid ridges, till plains
Parent material: friable loamy eolian deposits over firm till
Reaction (pH):
- 0 to 9 inches: strongly acid to slightly acid (5.1 to 6.5)
- 9 to 17 inches: strongly acid to slightly acid (5.1 to 6.5)
- 17 to 22 inches: strongly acid to slightly acid (5.1 to 6.5)
- 22 to 36 inches: strongly acid to slightly acid (5.1 to 6.5)
- 36 to 54 inches: strongly acid to slightly alkaline (5.1 to 7.8)
- 54 to 69 inches: strongly acid to slightly alkaline (5.1 to 7.8)
- 69 to 80 inches: strongly acid to slightly alkaline (5.1 to 7.8)

Permeability:
- 0 to 9 inches: moderate (0.6 to 2 inches/hour)
- 9 to 17 inches: moderate (0.6 to 2 inches/hour)
- 17 to 22 inches: moderate (0.6 to 2 inches/hour)
- 22 to 36 inches: slow (0.06 to 0.2 inches/hour)
- 36 to 54 inches: slow (0.06 to 0.2 inches/hour)
- 54 to 69 inches: slow (0.06 to 0.2 inches/hour)
- 69 to 80 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland

These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Because of the seasonal high water table, subsurface drainage in low areas may extend the period of planting and harvesting of crops. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture

These soils are well suited to pasture. Erosion control may be needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome seasonal wetness limitations. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal wetness in low areas of this unit or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness. Consult the Water Features table for months of seasonal wetness.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

In parts of this map unit the seasonal high water table may limit the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The depth to dense material may reduce the filtering capacity of these soils and may greatly increase the difficulty of properly installing effluent distribution lines. The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. In parts of this map unit, the seasonal high water table may impede excavation and grading and reduces the bearing capacity of these soils. The addition of coarse-textured subgrade material and supplemental drainage can help reduce these limitations.

72C—Broadalbin fine sandy loam, 8 to 15 percent slopes

Setting

This unit is on strongly sloping till plains and side slopes of drumlins in the Mohawk Valley. It has a fragipan or dense subsoil layer (fig. 10).

Map Unit Composition

Major Components

Broadalbin: 75 percent

Figure 10.—Map unit 72C, Broadalbin fine sandy loam, commonly occurs on small drumlin landforms like this one along State Route 30A. The very firm fragipan layer at 2 to 3 feet deep below the surface may hinder deep-rooted crops like alfalfa, but are generally productive with most other hay crops under good management practices.

Inclusions
Paxton: 7 percent
Charlton: 5 percent
Woodbridge: 4 percent
Mosherville: 3 percent
Chatfield: 2 percent
Unnamed: 4 percent

Included in mapping are areas of Paxton and Woodbridge soils that lack a fragipan subsoil above the dense substratum. Charlton soils commonly lack a fragipan or other root restrictive layers. Somewhat poorly drained Mosherville soils are included on slightly concave areas, footslopes and along drainageways. Chatfield soils are moderately deep to bedrock.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
    Broadalbin: no
Hydrologic group:
    Broadalbin: C

Soil Properties and Qualities

Broadalbin
Drainage class: well drained

Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 18 to 36 inches to a fragipan
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: drumlinoid ridges, till plains
Parent material: friable loamy eolian deposits over firm till
Reaction (pH):
 0 to 9 inches: strongly acid to slightly acid (5.1 to 6.5)
 9 to 17 inches: strongly acid to slightly acid (5.1 to 6.5)
 17 to 22 inches: strongly acid to slightly acid (5.1 to 6.5)
 22 to 36 inches: strongly acid to slightly acid (5.1 to 6.5)
 36 to 54 inches: strongly acid to slightly alkaline (5.1 to 7.8)
 54 to 69 inches: strongly acid to slightly alkaline (5.1 to 7.8)
 69 to 80 inches: strongly acid to slightly alkaline (5.1 to 7.8)
Permeability:
 0 to 9 inches: moderate (0.6 to 2 inches/hour)
 9 to 17 inches: moderate (0.6 to 2 inches/hour)
 17 to 22 inches: moderate (0.6 to 2 inches/hour)
 22 to 36 inches: slow (0.06 to 0.2 inches/hour)
 36 to 54 inches: slow (0.06 to 0.2 inches/hour)
 54 to 69 inches: slow (0.06 to 0.2 inches/hour)
 69 to 80 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland

These soils have strongly sloping areas that are subject to erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture

These soils are well suited to pasture. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

- Haul roads are subject to erosion on these strongly sloping areas. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads. Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

These strongly sloping areas influence the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of properly installing effluent distribution lines. The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of effluent from conventional septic systems. Because of these strongly sloping areas, special design and installation techniques may be required. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. These strongly sloping soils may impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

72D—Broadalbin fine sandy loam, 15 to 25 percent slopes

Setting

This unit is on moderately steep side slopes of till plains and drumlins in the Mohawk Valley. It has a fragipan or dense subsoil layer.

Map Unit Composition

Major Components
Broadalbin: 75 percent

Inclusions
Paxton: 8 percent
Charlton: 7 percent
Chatfield: 2 percent
Mosherville: 2 percent
Hollis: 1 percent
Unnamed: 5 percent

Included in mapping are areas of Paxton and Woodbridge soils that lack a fragipan subsoil above a dense substratum. Charlton soils commonly lack fragipan or other root restrictive layers. Somewhat poorly drained Mosherville soils are included on slightly concave areas, footslopes, and along drainageways. Hollis soils are shallow to bedrock.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
    Broadalbin: no
Hydrologic group:
    Broadalbin: C

Soil Properties and Qualities

Broadalbin
Drainage class: well drained

Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 18 to 36 inches to a fragipan
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: drumlinoid ridges, till plains
Parent material: friable loamy eolian deposits over firm till
Reaction (pH):
- 0 to 9 inches: strongly acid to slightly acid (5.1 to 6.5)
- 9 to 17 inches: strongly acid to slightly acid (5.1 to 6.5)
- 17 to 22 inches: strongly acid to slightly acid (5.1 to 6.5)
- 22 to 36 inches: strongly acid to slightly acid (5.1 to 6.5)
- 36 to 54 inches: strongly acid to slightly alkaline (5.1 to 7.8)
- 54 to 69 inches: strongly acid to slightly alkaline (5.1 to 7.8)
- 69 to 80 inches: strongly acid to slightly alkaline (5.1 to 7.8)

Permeability:
- 0 to 9 inches: moderate (0.6 to 2 inches/hour)
- 9 to 17 inches: moderate (0.6 to 2 inches/hour)
- 17 to 22 inches: moderate (0.6 to 2 inches/hour)
- 22 to 36 inches: slow (0.06 to 0.2 inches/hour)
- 36 to 54 inches: slow (0.06 to 0.2 inches/hour)
- 54 to 69 inches: slow (0.06 to 0.2 inches/hour)
- 69 to 80 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland

These moderately steep areas are subject to severe erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture

These moderately steep areas are subject to severe erosion if heavily grazed. Erosion control is needed when pastures are renovated. Avoiding overgrazing can help to reduce the hazard of erosion.

Woodland

- Haul roads are subject to erosion on these moderately steep slopes. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations due to moderately steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment

control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep slope causes safety concerns in use of machinery and adversely affects ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites with less sloping conditions should be considered for this use. Because of the moderately steep slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions with good percolation rates that could be utilized in order to avoid possible health and environmental risks.

Local Roads and Streets

These moderately steep area can impede trafficability of heavy machinery and increases the difficulty and cost of building roads. Special designs, including routing roads along slope contours, may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

74A—Mosherville loam, 0 to 3 percent slopes

Setting

This unit is on nearly level till plains in the Mohawk Valley. It has a fragipan or dense subsoil layer.

Map Unit Composition

Major Components

Mosherville: 80 percent

Inclusions

Ridgebury: 5 percent
Sun: 5 percent
Broadalbin: 3 percent
Woodbridge: 2 percent
Unnamed: 5 percent

Included in mapping are areas of moderately well drained Woodbridge and somewhat poorly drained Ridgebury soils which lack a fragipan subsoil above a dense substratum. In depressions and along drainageways, small areas of poorly drained Sun soils are included. On small knolls, moderately well drained Broadalbin soils are present in some areas.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3w
Hydric soil rating:
    Mosherville: no
Hydrologic group:
    Mosherville: D

Soil Properties and Qualities

Mosherville
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 13 to 30 inches to a fragipan
Depth to seasonal high water table: 6 to 18 inches
  Water table kind: perched
Flooding: none
Available water capacity: very low
Potential frost action: high
Shrink-swell potential: low
Landform: interdrumlins, till plains
Parent material: firm loamy till
Reaction (pH):
  0 to 9 inches: strongly acid to slightly acid (5.1 to 6.5)
  9 to 13 inches: strongly acid to slightly acid (5.1 to 6.5)
  13 to 27 inches: strongly acid to neutral (5.1 to 7.3)
  27 to 37 inches: strongly acid to neutral (5.1 to 7.3)
  37 to 42 inches: strongly acid to neutral (5.1 to 7.3)
  42 to 72 inches: moderately acid to moderately alkaline (5.6 to 8.4)
Permeability:
  0 to 9 inches: moderate (0.6 to 2 inches/hour)
  9 to 13 inches: moderate (0.6 to 2 inches/hour)
  13 to 27 inches: slow (0.06 to 0.2 inches/hour)
  27 to 37 inches: slow (0.06 to 0.2 inches/hour)
  37 to 42 inches: slow (0.06 to 0.2 inches/hour)
  42 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland
The seasonal high water table can cause problems with operation of planting and harvesting equipment and with root growth. Systematic subsurface drainage may extend the period of planting and harvesting of crops. The root system of some deep-rooted crops may be damaged by frost action. Plants may suffer from moisture stress during drier summer months because of very low available water capacity above the fragipan. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture
These soils are well suited to pasture. Excess water should be removed or diverted from this area. Grass or legume species that are adapted to wet soil conditions should be planted. Planting adapted species can minimize the root damage caused by frost action. Plants may suffer moisture stress during the drier summer months because of very low available water capacity above the fragipan. Avoiding overgrazing can reduce the hazard of erosion.

Woodland
- Haul roads are affected by the seasonal high water table. Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal saturation.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained

base material will help overcome limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations on this soil.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The depth to a hard restrictive layer in these soils can slow the rate of excavation and increase construction costs. The seasonal high water table may severely limit the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table in these soils greatly limits the absorption and proper treatment of effluent from conventional septic systems. The depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The shallow depth to a cemented or dense layer in these soils limits site preparation such as shaping and grading and restricts installation of roads and streets. The seasonal high water table may impede excavation and grading and reduce the bearing capacity of these soils. Local roads and streets may also be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

74B—Mosherville loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping till plains in the Mohawk Valley. It has a fragipan or dense subsoil layer.

Map Unit Composition

Major Components

Mosherville: 75 percent

Inclusions
Broadalbin: 8 percent
Ridgebury: 6 percent
Woodbridge: 4 percent
Sun: 3 percent
Unnamed: 4 percent

Included in mapping are areas of moderately well drained Broadalbin soils on knolls or convex positions. Small areas of moderately well drained Woodbridge and somewhat poorly drained Ridgebury soils are included where there is no fragipan above a dense substratum. In depressions and along drainageways, small areas of poorly drained Sun soils are included.

Use and Management

Cropland

The seasonal high water table can cause problems with operation of planting and harvesting equipment and with root growth. Systematic subsurface drainage may extend the period of planting and harvesting of crops. Grassed waterways can be used in some areas to slow surface runoff and reduce erosion. Using a system of conservation tillage and planting cover crops may help to reduce the runoff rate and help to minimize soil loss by erosion. The root system of some deep-rooted crops may be damaged by frost action. Plants may also suffer from moisture stress during drier summer months because of very low available water capacity above the fragipan. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture

These soils are well suited to pasture. Excess water should be removed or diverted from this area. Grass or legume species that are adapted to wet soil conditions should be planted. Planting adapted species can minimize the root damage caused by frost action. Plants may suffer moisture stress during the drier summer months because of very low available water capacity above the fragipan. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

- Haul roads are affected by the seasonal high water table. Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal saturation.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations on this soil.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.

- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development

Erosion and sediment control can be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The depth to a hard restrictive layer in these soils can slow the rate of excavation and increase construction costs. The seasonal high water table may severely limit the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table in these soils greatly limits the absorption and proper treatment of effluent from conventional septic systems. The depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The shallow depth to a cemented or dense layer in these soils limits site preparation such as shaping and grading and restricts installation of roads and streets. The seasonal high water table may impede excavation and grading and reduce the bearing capacity of these soils. Local roads and streets may also be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

77A—Sun loam, 0 to 3 percent slopes

Setting

This unit is in depressions and nearly level areas on till plains in the Mohawk valley. It has a firm, dense substratum.

Map Unit Composition

Major Components
Sun: 75 percent

Inclusions
Ridgebury: 7 percent
Mosherville: 6 percent
Ilion: 5 percent
Madalin: 4 percent
Manheim: 3 percent

Included in mapping are areas of somewhat poorly drained Ridgebury and Mosherville soils on slightly higher areas and lacking redox features in the topsoil. Small areas of Ilion and Madalin soils are included where there is more clay in the subsoil. Also, Manheim soils are included on slightly higher positions having a high content of black shale fragments.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 4w
Hydric soil rating:
  Sun: yes
Hydrologic group:
  Sun: C/D

Soil Properties and Qualities

Sun
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 0 to 12 inches
  Water table kind: perched
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: depressions
Parent material: loamy till
Reaction (pH):
  0 to 5 inches: strongly acid to neutral (5.1 to 7.3)
  5 to 9 inches: strongly acid to neutral (5.1 to 7.3)
  9 to 15 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  15 to 23 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  23 to 39 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  39 to 80 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 5 inches: moderate (0.6 to 2 inches/hour)
  5 to 9 inches: moderate (0.6 to 2 inches/hour)
  9 to 15 inches: moderate (0.6 to 2 inches/hour)
  15 to 23 inches: moderate (0.6 to 2 inches/hour)
  23 to 39 inches: moderate (0.6 to 2 inches/hour)
  39 to 80 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
These soils are poorly suited to cultivated crops because of the seasonal high water table. Root systems of some deep-rooted crops may be damaged by frost action.

Pasture
These soils are poorly suited to pasture because of the seasonal high water table. Excess water should be removed or diverted where possible. Grass or legume species that are adapted to wet soil conditions should be managed or planted. Avoiding overgrazing can reduce the hazard of erosion.

Woodland
- Haul roads are limited by the seasonal high water table. Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations due to wetness. Consult the Water Features table for months of seasonal saturation.

- Log landings should be built on areas other than these poorly drained soils The rutting hazard can be reduced by restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders.
- Windthrow hazard can be minimized by selective harvesting systems that minimize canopy openings and reduce root system damage and by maintenance of buffers around the upland edges.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

Other better drained sites should be considered for this use. The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

Other better drained sites should be considered for this use. The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets can also be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce these limitations.

81B—Charlton loam, 2 to 8 percent slopes

Setting

This unit is on gently sloping and undulating till plains in the Mohawk Valley.

Map Unit Composition

Major Components
Charlton: 80 percent

Inclusions
Woodbridge: 8 percent
Paxton: 6 percent
Georgia: 3 percent
Unnamed: 3 percent

Included in mapping are areas of Paxton and Woodbridge soils having a dense substratum within 40 inches deep. Inclusions of moderately well drained Georgia are on slightly concave positions and on footslopes.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
  Charlton: no
Hydrologic group:
  Charlton: A

Soil Properties and Qualities

Charlton
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Landform: hills, till plains
Parent material: loamy ablation till
Reaction (pH):
  0 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
  14 to 27 inches: very strongly acid to moderately acid (4.5 to 6.0)
  27 to 36 inches: very strongly acid to moderately acid (4.5 to 6.0)
  36 to 72 inches: very strongly acid to moderately acid (4.5 to 6.0)
Permeability:
  0 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  14 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  27 to 36 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  36 to 72 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

Use and Management

Cropland
These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and minimize soil loss by erosion.

Pasture
These soils are well suited to pasture. Erosion control may be needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland
There are no major soil limitations for this use.

Development
Erosion and sediment control may be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
There are no major soil limitations for this use.

Septic Tank Absorption Fields
There are no major soil limitations for this use in many areas of this map unit. However, a moderate rate of fluid movement through these soils may impede the

absorption and proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

81C—Charlton loam, 8 to 15 percent slopes

Setting

This unit is on strongly sloping till plains in the Mohawk Valley.

Map Unit Composition

Major Components
Charlton: 80 percent

Inclusions
Paxton: 8 percent
Woodbridge: 5 percent
Georgia: 3 percent
Unnamed: 4 percent

Included in mapping are areas of Paxton and Woodbridge soils having a dense substratum within 40 inches deep. Inclusions of moderately well drained Georgia are on slightly concave positions and on footslopes.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
Charlton: no
Hydrologic group:
Charlton: A

Soil Properties and Qualities

Charlton
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Landform: hills, till plains
Parent material: loamy ablation till
Reaction (pH):
0 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
14 to 27 inches: very strongly acid to moderately acid (4.5 to 6.0)
27 to 36 inches: very strongly acid to moderately acid (4.5 to 6.0)
36 to 72 inches: very strongly acid to moderately acid (4.5 to 6.0)

Permeability:
0 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
14 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
27 to 36 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
36 to 72 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

Use and Management

Cropland
These strongly sloping soils are limited to growing cultivated crops because of soil erosion risk. Using a system of conservation tillage and planting cover crops can reduce the surface runoff rate and help to minimize soil loss by erosion.

Pasture
These soils are well suited to pasture. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland
There are no major soil limitations for this use.

Development
Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
This strongly sloping area has safety concerns for use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields
These strongly sloping soils may need special design and installation techniques for effluent distribution lines. The moderate rate of fluid movement through these soils may impede the absorption and proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. Strongly sloping conditions may impede trafficability of heavy machinery and increases the difficulty and cost of building roads. Placing roads on the contour can help overcome this limitation.

81D—Charlton loam, 15 to 25 percent slopes

Setting

This unit is on moderately steep slopes of ablation till plains in the Mohawk Valley.

Map Unit Composition

Major Components
Charlton: 80 percent

Inclusions
Paxton: 8 percent

Woodbridge: 3 percent
Chatfield: 2 percent
Georgia: 2 percent
Unnamed: 5 percent

Included in mapping are areas of Paxton and Woodbridge soils having a dense substratum within 40 inches deep. Moderately deep to bedrock Chatfield soils are included on nose slopes and near short steep slopes. Inclusions of moderately well drained Georgia are on footslopes and along drainageways.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
    Charlton: no
Hydrologic group:
    Charlton: A

Soil Properties and Qualities

Charlton
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Landform: hills, till plains
Parent material: loamy ablation till
Reaction (pH):
    0 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
    14 to 27 inches: very strongly acid to moderately acid (4.5 to 6.0)
    27 to 36 inches: very strongly acid to moderately acid (4.5 to 6.0)
    36 to 72 inches: very strongly acid to moderately acid (4.5 to 6.0)
Permeability:
    0 to 14 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    14 to 27 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    27 to 36 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    36 to 72 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

Use and Management

Cropland
These moderately steep soils are very limited to growing cultivated crops because of safety considerations in use of farm equipment and because of erosion hazard. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
These moderately steep soils are subject to erosion on heavily grazed areas. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

Haul roads are limited on these moderately steep soils. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads. Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep slope of this unit can cause unsafe use of machinery and make excavation difficult. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Because of the moderately steep slope, special design and installation techniques are needed for effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Onsite investigation is also needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep slope of this map unit impedes trafficability of heavy machinery and increases the difficulty and cost of building roads. Special designs that include routing roads along the slope contour may be necessary. Local roads and streets may also be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

89A—Whitman mucky loam, 0 to 3 percent slopes

Setting

This map unit is on nearly level areas of till plains in the Mohawk Valley. It has a firm, dense substratum.

Map Unit Composition

Major Components
Whitman: 75 percent

Inclusions
Ridgebury: 5 percent
Timakwa: 5 percent
Cheektowaga: 3 percent
Ilion: 3 percent
Unnamed: 9 percent

Included in mapping are areas of somewhat poorly drained Ridgebury soils on slightly higher positions. Inclusions of Timakwa soils occur where thick organic

deposits overlie sandy substrata. Cheektowaga soils are included where sandy over clayey sediments occur. Small areas of Ilion soils are included where the till has more clay.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
  Whitman: yes
Hydrologic group:
  Whitman: D

Soil Properties and Qualities

Whitman
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 12 to 20 inches to densic material
Depth to seasonal high water table: 0 to 12 inches
  Water table kind: perched
  Ponding: frequent
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Landform: depressions
Parent material: loamy lodgment till
Reaction (pH):
  0 to 2 inches: extremely acid to moderately acid (3.5 to 6.0 in CaCl2)
  2 to 8 inches: very strongly acid to slightly acid (4.5 to 6.5)
  8 to 10 inches: very strongly acid to slightly acid (4.5 to 6.5)
  10 to 18 inches: very strongly acid to slightly acid (4.5 to 6.5)
  18 to 30 inches: very strongly acid to slightly acid (4.5 to 6.5)
  30 to 60 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  2 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 10 inches: moderate (0.6 to 2 inches/hour)
  10 to 18 inches: moderate (0.6 to 2 inches/hour)
  18 to 30 inches: slow (0.06 to 0.2 inches/hour)
  30 to 60 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
These soils are not suited to growing cultivated crops due to ponding and the seasonal high water table.

Pasture
These soils are poorly suited to pasture due to ponding and the seasonal high water table.

Woodland
- Haul roads are very limited by the seasonal high water table. Locating roads on better drained soils or limiting road construction to drier parts of the year will help

overcome construction limitations of haul roads due to wetness. Consult the Water Features table for months of seasonal saturation.
- Areas of these very poorly drained soils are subject to ponding and therefore, should be avoided when locating log landings.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders. Consult the Water Features table for months of seasonal saturation.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to ponding. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

Other sites should be considered for this use. Because of the potential for ponding, these soils are poorly suited as a site for dwellings with basements. Time for excavations can be very limited and intensive construction site development and building maintenance may be needed.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of ponding, these soils are not suitable for septic tank absorption fields.

Local Roads and Streets

These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil. Local roads and streets may also be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

90B—Palatine silt loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping, bedrock controlled till plains in the Mohawk Valley. It is moderately deep to weakly consolidated, calcareous, dark shale.

Map Unit Composition

Major Components
Palatine: 75 percent

Inclusions
Angola: 8 percent
Manheim: 5 percent
Mohawk: 5 percent
Galway: 4 percent
Rhinebeck: 3 percent

Included in mapping are areas of somewhat poorly drained Angola soils in slightly more concave positions and along drainageways. Inclusions of Mohawk and Manheim soils occur in areas where the bedrock is greater than 40 inches deep. Small areas of Galway soils are included where the underlying bedrock is hard and the subsoil contains fewer shale fragments. Somewhat poorly drained Rhinebeck soils are also included in places that are more clayey.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
 Palatine: no
Hydrologic group:
 Palatine: C

Soil Properties and Qualities

Palatine
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: benches, ridges
Parent material: dark colored loamy till
Reaction (pH):
 0 to 7 inches: slightly acid to slightly alkaline (6.1 to 7.8)
 7 to 20 inches: slightly acid to slightly alkaline (6.1 to 7.8)
 20 to 30 inches: slightly acid to slightly alkaline (6.1 to 7.8)
 30 to 38 inches: slightly alkaline or moderately alkaline (7.4 to 8.4)
 38 inches, bedrock
Permeability:
 0 to 7 inches: moderate (0.6 to 2 inches/hour)
 7 to 20 inches: moderate (0.6 to 2 inches/hour)
 20 to 30 inches: moderate (0.6 to 2 inches/hour)
 30 to 38 inches: moderate (0.6 to 2 inches/hour)
 38 inches, bedrock

Use and Management

Cropland
These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
These soils are well suited to pasture. Erosion control may be needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations due to moderately deep soils.

- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control may be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

There are no major soil limitations for this use.

Septic Tank Absorption Fields

The moderately deep bedrock reduces the filtering capacity of these soils and increases the difficulty of proper installation of effluent distribution lines. Some bedrock types have cracks and crevices that may channel pollutants to groundwater. Also, the moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

90C—Palatine silt loam, 8 to 15 percent slopes

Setting

This unit is on strongly sloping, bedrock controlled till plains in the Mohawk Valley. It is moderately deep to weakly consolidated, calcareous, dark shale.

Map Unit Composition

Major Components
Palatine: 80 percent

Inclusions
Mohawk: 8 percent
Angola: 4 percent
Galway: 4 percent
Manheim: 3 percent
Rhinebeck: 1 percent

Included in mapping are areas of Mohawk and Manheim soils where bedrock is greater than 40 inches deep. Inclusions of somewhat poorly drained Angola soils occur on footslopes and along drainageways. Small areas of Galway soils are included where the underlying bedrock is hard and the subsoil contains fewer shale fragments. Somewhat poorly drained Rhinebeck soils are also included in places that are more clayey.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e

Hydric soil rating:
Palatine: no
Hydrologic group:
Palatine: C

Soil Properties and Qualities

Palatine
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: shale bedrock controlled low hills, shale bedrock controlled ridges
Parent material: dark colored loamy till
Reaction (pH):
0 to 7 inches: slightly acid to slightly alkaline (6.1 to 7.8)
7 to 20 inches: slightly acid to slightly alkaline (6.1 to 7.8)
20 to 30 inches: slightly acid to slightly alkaline (6.1 to 7.8)
30 to 38 inches: slightly alkaline or moderately alkaline (7.4 to 8.4)
38 inches, bedrock
Permeability:
0 to 7 inches: moderate (0.6 to 2 inches/hour)
7 to 20 inches: moderate (0.6 to 2 inches/hour)
20 to 30 inches: moderate (0.6 to 2 inches/hour)
30 to 38 inches: moderate (0.6 to 2 inches/hour)
38 inches, bedrock

Use and Management

Cropland
These strongly sloping soils are limited for growing cultivated crops because of potential soil erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion. The rooting depth of some deep-rooting crops may be restricted by bedrock.

Pasture
These soils are well suited to pasture. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland
- Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations due to moderately deep soils.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development
Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control

structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

These strongly sloping soils cause safety concerns in the use of machinery and diminish the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The moderately deep bedrock and strongly sloping soils reduce the filtering capacity of these soils and greatly increase the difficulty of proper installation of effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater. Also, the moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. These strongly sloping soils impede trafficability of heavy machinery and increase the difficulty and cost of building roads. Placing roads on the contour can help overcome this limitation.

90D—Palatine silt loam, 15 to 25 percent slopes

Setting

This unit is on moderately steep, bedrock controlled till plains in the Mohawk Valley. It is moderately deep to weakly consolidated, calcareous, dark shale.

Map Unit Composition

Major Components
Palatine: 85 percent

Inclusions
Mohawk: 6 percent
Galway: 5 percent
Angola: 1 percent
Manheim: 1 percent
Unnamed: 2 percent

Included in mapping are areas of Mohawk and Manheim soils where the bedrock is greater than 40 inches deep. Small areas of Galway soils are included where the underlying bedrock is hard and the subsoil contains fewer shale fragments. Inclusions of somewhat poorly drained Angola soils occur on footslopes and along drainageways.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
    Palatine: no
Hydrologic group:
    Palatine: C

Soil Properties and Qualities

Palatine
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: shale bedrock controlled hills, shale bedrock controlled ridges
Parent material: dark colored loamy till
Reaction (pH):
- 0 to 7 inches: slightly acid to slightly alkaline (6.1 to 7.8)
- 7 to 20 inches: slightly acid to slightly alkaline (6.1 to 7.8)
- 20 to 30 inches: slightly acid to slightly alkaline (6.1 to 7.8)
- 30 to 38 inches: slightly alkaline or moderately alkaline (7.4 to 8.4)
- 38 inches, bedrock

Permeability:
- 0 to 7 inches: moderate (0.6 to 2 inches/hour)
- 7 to 20 inches: moderate (0.6 to 2 inches/hour)
- 20 to 30 inches: moderate (0.6 to 2 inches/hour)
- 30 to 38 inches: moderate (0.6 to 2 inches/hour)
- 38 inches, bedrock

Use and Management

Cropland
These moderately steep soils are very limited for growing cultivated crops because of safety concerns while operating farm machinery and soil erosion hazard. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
These moderately steep soils are subject to erosion on heavily grazed areas. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland
- Haul roads are limited by moderately steep slopes and moderately deep to bedrock conditions. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads. Locating haul roads on soils that are deeper to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations due to moderately deep soils.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep slope can generally cause unsafe use of machinery and make excavation difficult. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

The moderately deep and moderately steep conditions of this map unit can greatly reduce the filtering capacity of these soils and greatly increase the difficulty of proper installation of effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads. Special designs that include routing roads along the slope contour may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

94B—Paxton fine sandy loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping till plains and hill tops in the Mohawk Valley. It has a firm, dense substratum.

Map Unit Composition

Major Components

Paxton: 75 percent

Inclusions

Woodbridge: 8 percent
Charlton: 7 percent
Georgia: 5 percent
Unnamed: 5 percent

Included in mapping are areas of moderately well drained Woodbridge soils on slightly concave positions or on footslopes. Small areas of Charlton and Georgia soils are included where the soil is not firm and brittle within 40 inches deep.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
  Paxton: no
Hydrologic group:
  Paxton: C

Soil Properties and Qualities

Paxton
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 30 to 40 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: hills, till plains
Parent material: loamy lodgment till
Reaction (pH):
    0 to 1 inch: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
    1 to 6 inches: very strongly acid to moderately acid (4.5 to 6.0)
    6 to 15 inches: very strongly acid to moderately acid (4.5 to 6.0)
    15 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
    25 to 31 inches: very strongly acid to moderately acid (4.5 to 6.0)
    31 to 63 inches: very strongly acid to moderately acid (4.5 to 6.0)
    63 to 80 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
    0 to 1 inch: moderate or moderately rapid (0.6 to 6 inches/hour)
    1 to 6 inches: moderate (0.6 to 2 inches/hour)
    6 to 15 inches: moderate (0.6 to 2 inches/hour)
    15 to 25 inches: moderate (0.6 to 2 inches/hour)
    25 to 31 inches: moderate (0.6 to 2 inches/hour)
    31 to 63 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
    63 to 80 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
These soils are well suited to pasture. Erosion control may be needed when pastures are renovated.

Woodland
- Haul roads may be affected by seepage water flowing above the dense substratum of these soils during early spring each year. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during early spring, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.

- The rutting hazard can be minimized by restricting harvesting operations during the spring months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control may be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table that is perched on the dense substratum may cause seepage into basements during the spring. Structures may need special design to avoid damage from wetness.

Septic Tank Absorption Fields

The seasonal high water table in some areas of these soils during spring may limit the absorption and proper treatment of the effluent from conventional septic systems. These moderately deep soils over a dense material tend to have limited filtering capacity and the dense substratum may impede the proper installation of effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

Correlation Note: Map units 94B, C, and D have a slightly acid C horizon below the Cd and a contrast of the accumulations in the BC that are not typical for the Paxton series. This should not significantly affect use and management on a local basis for most purposes.

94C—Paxton fine sandy loam, 8 to 15 percent slopes

Setting

This unit is on strongly sloping till plains and hillsides in the Mohawk Valley. It has a firm, dense substratum.

Map Unit Composition

Major Components
Paxton: 80 percent

Inclusions
Charlton: 8 percent
Woodbridge: 5 percent
Georgia: 2 percent
Unnamed: 5 percent

Included in mapping are areas of Charlton and Georgia soils where the soil is not firm and brittle within 40 inches deep. Inclusions of moderately well drained Woodbridge soils are included on slightly concave positions or on footslopes.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
  Paxton: no
Hydrologic group:
  Paxton: C

Soil Properties and Qualities

Paxton
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 30 to 40 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: drumlinoid ridges, hills, till plains
Parent material: loamy lodgment till
Reaction (pH):
  0 to 1 inch: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
  1 to 6 inches: very strongly acid to moderately acid (4.5 to 6.0)
  6 to 15 inches: very strongly acid to moderately acid (4.5 to 6.0)
  15 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
  25 to 31 inches: very strongly acid to moderately acid (4.5 to 6.0)
  31 to 63 inches: very strongly acid to moderately acid (4.5 to 6.0)
  63 to 80 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 1 inch: moderate or moderately rapid (0.6 to 6 inches/hour)
  1 to 6 inches: moderate (0.6 to 2 inches/hour)
  6 to 15 inches: moderate (0.6 to 2 inches/hour)
  15 to 25 inches: moderate (0.6 to 2 inches/hour)
  25 to 31 inches: moderate (0.6 to 2 inches/hour)
  31 to 63 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
  63 to 80 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
These soils have strongly sloping areas that are subject to erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
These soils are well suited to pasture. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland
- Haul roads are limited by seasonal wetness and are subject to erosion on these strongly sloping areas. Avoiding construction during early spring seasonal wetness,

adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads.
- Avoiding construction of log landings during early spring wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- The rutting hazard can be overcome by restricting harvesting operations during spring, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table that is perched on the dense substratum may cause seepage into basements during the spring. These strongly sloping soils may cause safety concerns in the use of machinery and adversely affect the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The depth to dense material and water seepage over the dense substratum during spring reduce the filtering capacity of these soils and may greatly increase the difficulty of properly installing effluent distribution lines. The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of effluent from conventional septic systems. Because of these strongly sloping areas, special design and installation techniques may be required. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

94D—Paxton fine sandy loam, 15 to 25 percent slopes

Setting

This unit is on moderately steep side slopes of till plains and drumlins in the Mohawk Valley. It has a firm, dense substratum.

Map Unit Composition

Major Components

Paxton: 85 percent

Inclusions
Charlton: 8 percent
Woodbridge: 2 percent
Georgia: 1 percent
Unnamed: 4 percent

Included in mapping are areas of Charlton and Georgia soils where the soil is not firm and brittle within 40 inches deep. Inclusions of moderately well drained Woodbridge soils are included on footslopes and along drainageways.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
  Paxton: no
Hydrologic group:
  Paxton: C

Soil Properties and Qualities

Paxton
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 30 to 40 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: drumlinoid ridges, hills, till plains
Parent material: loamy lodgment till
Reaction (pH):
  0 to 1 inch: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
  1 to 6 inches: very strongly acid to moderately acid (4.5 to 6.0)
  6 to 15 inches: very strongly acid to moderately acid (4.5 to 6.0)
  15 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
  25 to 31 inches: very strongly acid to moderately acid (4.5 to 6.0)
  31 to 63 inches: very strongly acid to moderately acid (4.5 to 6.0)
  63 to 80 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 1 inch: moderate or moderately rapid (0.6 to 6 inches/hour)
  1 to 6 inches: moderate (0.6 to 2 inches/hour)
  6 to 15 inches: moderate (0.6 to 2 inches/hour)
  15 to 25 inches: moderate (0.6 to 2 inches/hour)
  25 to 31 inches: moderate (0.6 to 2 inches/hour)
  31 to 63 inches: very slow to moderately slow (0.001 to 0.6 inches/hour)
  63 to 80 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
These moderately steep areas are very limiting to growing cultivated crops because of unsafe operation of farm machinery and risk of soil erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture

These soils are limited for pasture because of moderately steep and steep slopes. Erosion control is needed when pastures are renovated. Safe opearation of machinery for pasture renovation is difficult on these slopes. Avoiding overgrazing can help to reduce the hazard of erosion.

Woodland

- Haul roads are subject to seepage in the spring and erosion on these moderately steep slopes. Avoiding construction during wetness in spring, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to moderately steep slopes.
- Avoiding construction of log landings during spring, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome log landing suitability limitations. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during the spring or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations. Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during the spring.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep slope causes safety concerns in use of machinery and adversely affects ease of excavation. Water seepage over the dense substratum may influence when excavations can take place and result in wet basements Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of moderately steep conditions, conventional septic systems will likely fail and special design and installation techniques will be needed for effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Water seepage in the spring may limit the absorption and proper treatment of effluent from conventional septic systems. Also, the moderately deep dense substratum adversely affects the filtering capacity of these soils and may greatly increase the difficulty of proper installation of distribution lines. Onsite investigation is needed to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads. Special designs, including

routing of roads along the contour, may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

95B—Woodbridge loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping till plains in the Mohawk Valley. It has a firm, dense substratum.

Map Unit Composition

Major Components
Woodbridge: 75 percent

Inclusions
Paxton: 8 percent
Ridgebury: 7 percent
Charlton: 5 percent
Chatfield: 5 percent

Included in mapping are areas of well drained Paxton soils on knolls and on slightly higher positions, and the somewhat poorly drained Ridgebury soils on slightly concave areas and footslopes. Small areas of well drained Charlton soils are included where the dense substratum is deeper than 40 inches. Also included are moderately deep to bedrock Chatfield soils.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2w
Hydric soil rating:
  Woodbridge: no
Hydrologic group:
  Woodbridge: C/D

Soil Properties and Qualities

Woodbridge
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: till plains
Parent material: loamy lodgment till
Reaction (pH):
  0 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
  5 to 16 inches: very strongly acid to moderately acid (4.5 to 6.0)
  16 to 26 inches: very strongly acid to moderately acid (4.5 to 6.0)
  26 to 72 inches: very strongly acid to moderately acid (4.5 to 6.0)

Permeability:
- 0 to 5 inches: moderate (0.6 to 2 inches/hour)
- 5 to 16 inches: moderate (0.6 to 2 inches/hour)
- 16 to 26 inches: moderate (0.6 to 2 inches/hour)
- 26 to 72 inches: very slow or slow (0.001 to 0.2 inches/hour)

Use and Management

Cropland

These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Subsurface drainage in low areas may extend the period of planting and harvesting of crops.

Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture

These soils are well suited to pasture. Erosion control may be needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

- Haul roads are limited by the seasonal high water table. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal saturation.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Harvest equipment operability limitations caused by seasonal wetness can be diminished by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen.
- Rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table may limit the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness and seepage of water into the basement. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate rate of fluid movement through these soils may limit the absorption and proper treatment of effluent from conventional septic systems. The moderate depth to dense material can limit the filtering capacity

of these soils and the dense substratum may cause difficult installation of distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

96B—Ridgebury loam, 0 to 8 percent slopes

Setting

This unit is on nearly level and gently sloping areas along drainageways of till plains in the Mohawk Valley. It has a firm, dense substratum.

Map Unit Composition

Major Components

Ridgebury (taxadjunct): 80 percent

Inclusions

Ridgebury: 7 percent
Whitman: 5 percent
Woodbridge: 5 percent
Sun: 3 percent

Included in mapping are areas of poorly drained Ridgebury soils where the dense substratum is less than 20 inches deep. Small areas of very poorly drained Whitman soils and poorly drained Sun soils are included in depressions along drainageways. Inclusions of moderately well drained Woodbridge soils are on slightly higher, more convex positions.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3w
Hydric soil rating:
    Ridgebury: no
Hydrologic group:
    Ridgebury: D

Soil Properties and Qualities

Ridgebury

Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 10 to 18 inches
    Water table kind: perched
Flooding: none
Available water capacity: low
Potential frost action: high
Shrink-swell potential: low
Landform: till plains

Parent material: loamy lodgment till
Reaction (pH):
 0 to 1 inch: extremely acid to strongly acid (3.5 to 5.5 in $CaCl_2$)
 1 to 7 inches: very strongly acid to moderately acid (4.5 to 6.0)
 7 to 13 inches: very strongly acid to moderately acid (4.5 to 6.0)
 13 to 21 inches: very strongly acid to moderately acid (4.5 to 6.0)
 21 to 28 inches: very strongly acid to moderately acid (4.5 to 6.0)
 28 to 60 inches: very strongly acid to moderately acid (4.5 to 6.0)
Permeability:
 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 1 to 7 inches: moderate (0.6 to 2 inches/hour)
 7 to 13 inches: moderate (0.6 to 2 inches/hour)
 13 to 21 inches: moderate (0.6 to 2 inches/hour)
 21 to 28 inches: very slow or slow (0.001 to 0.2 inches/hour)
 28 to 60 inches: very slow or slow (0.001 to 0.2 inches/hour)

Use and Management

Cropland

These soils are limited for growing cultivated crops by the seasonal high water table. Systematic subsurface drainage may extend the period of planting and harvesting of crops. The root system of some deep-rooted crops may be damaged by frost action. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Plants may suffer from moisture stress during drier summer months because of low available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture

These soils are well suited to pasture. Excess water should be removed or diverted from this area where possible. Grass or legume species that are adapted to wet soil conditions should be managed and planted. Plants may suffer moisture stress during the drier summer months because of low available water capacity. Erosion control may be needed when pastures are renovated.

Woodland

- Haul roads are limited by the seasonal high water table. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, designing drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen.
- Rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.

- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control may be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

Other sites should be considered for this use. The seasonal high water table in these soils greatly limits the absorption and proper treatment of the effluent from conventional septic systems. Because of the depth to dense material, the filtering capacity of these soils is minimal and the dense substratum may also cause difficult installation of distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Also, local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

99A—Timakwa muck, 0 to 2 percent slopes

Setting

This soil is in depressions on nearly level glacial lake plains, till plains and outwash plains in the Mohawk Valley.

Map Unit Composition

Major Components
Timakwa: 75 percent

Inclusions
Scarboro: 7 percent
Catden: 5 percent
Cheektowaga: 5 percent
Fonda: 5 percent
Sun: 3 percent

Included in mapping are areas of Scarboro soils having 8 to 16 inches of organic soil near the surface. Catden soils are included in areas having more than 51 inches of organic soil above mineral soils. Small inclusions of Cheektowaga and Fonda soils are included in areas having clayey substrata. Poorly drained Sun soils represent loamy mineral soil inclusions.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7w
Hydric soil rating:
Timakwa, undrained: yes
Hydrologic group:
Timakwa, undrained: D

Soil Properties and Qualities

Timakwa, undrained
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
Water table kind: apparent
Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: semi-open depressions, swamps, backswamps
Parent material: woody organic material over sandy glaciolacustrine deposits
Reaction (pH):
0 to 2 inches: extremely acid to neutral (4.0 to 6.8 in CaCl2)
2 to 10 inches: extremely acid to neutral (4.0 to 6.8 in CaCl2)
10 to 18 inches: extremely acid to neutral (4.0 to 6.8 in CaCl2)
18 to 20 inches: extremely acid to neutral (4.0 to 6.8 in CaCl2)
20 to 25 inches: strongly acid to neutral (5.1 to 7.3)
25 to 60 inches: strongly acid to neutral (5.1 to 7.3)
Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 10 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
10 to 18 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
18 to 20 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
20 to 25 inches: moderately rapid to very rapid (2 to 100 inches/hour)
25 to 60 inches: moderately rapid to very rapid (2 to 100 inches/hour)

Use and Management

This map unit contains important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland

These soils are not suited to cultivated crops because of ponding or seasonal high water table.

Pasture

These soils are not suited to pasture because of ponding or seasonal high water table and low soil strength.

Woodland

- These very poorly drained soils are poorly suited to haul roads. Locating roads on higher, better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations. Consult the Water Features table for months of seasonal saturation.

- These soils having thick organic surfaces and subject to ponding should be avoided when locating log landings.
- Limiting timber harvesting operations to winter months when the ground is frozen is recommended for these soils with thick organic surfaces and low bearing strength (fig. 11).
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to ponding. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

These soils are not suited for this use because of ponding, a seasonal high water table and excess organic deposits causing subsidence.

Septic Tank Absorption Fields

This unit is not suited for this use because of ponding, a seasonal high water table, and excess organic deposits.

Figure 11.—Map unit 99A, Timakwa muck, can be an ideal wetland habitat for many plant and animal species. Because of low strength in organic soils, this area is not suitable for heavy equipment use.

Local Roads and Streets

These soils are very limited for local roads and streets due to the potential for ponding and excess organic material. Seasonal ponding adversely affects the ease of excavation and grading and limits the bearing capacity of the soil. Subsidence of the organic material reduces the load-bearing capacity of these soils.

109A—Catden muck, 0 to 2 percent slopes

Setting

This unit is in depressions on nearly level glacial outwash plains and lake plains in the Mohawk Valley. It formed in deep deposits of organic materials.

Map Unit Composition

Major Components
Catden: 75 percent

Inclusions
Aquents: 5 percent
Fonda: 5 percent
Sun: 5 percent
Timakwa: 5 percent
Whitman: 5 percent

Included in mapping are areas of Aquents that are mostly mineral soils and continuously ponded. Small areas of clayey Fonda soils occur in some places. Inclusions of Sun and Whitman soils occur along the margins of this unit where loamy till deposits exist. Also included are Timakwa soils where sandy substrata occur within 51 inches deep.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7w
Hydric soil rating:
 Catden, undrained: yes
Hydrologic group:
 Catden, undrained: D

Soil Properties and Qualities

Catden, undrained
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
 Water table kind: apparent
 Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: depressions, backswamps
Parent material: deep woody organic material
Reaction (pH):
 0 to 3 inches: very strongly acid to neutral (4.5 to 7.3 in CaCl2)

3 to 9 inches: very strongly acid to neutral (4.5 to 7.3 in CaCl2)
9 to 22 inches: very strongly acid to neutral (4.5 to 7.3 in CaCl2)
22 to 31 inches: very strongly acid to neutral (4.5 to 7.3 in CaCl2)
31 to 42 inches: very strongly acid to neutral (4.5 to 7.3 in CaCl2)
42 to 56 inches: very strongly acid to neutral (4.5 to 7.3 in CaCl2)
56 to 65 inches: very strongly acid to neutral (4.5 to 7.3 in CaCl2)
65 to 78 inches: very strongly acid to neutral (4.5 to 7.3 in CaCl2)
78 to 88 inches: very strongly acid to neutral (4.5 to 7.3)

Permeability:
0 to 3 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
3 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 22 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
22 to 31 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
31 to 42 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
42 to 56 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
56 to 65 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
65 to 78 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
78 to 88 inches: slow to very rapid (0.06 to 100 inches/hour)

Use and Management

This map unit contains important wetland habitat (fig. 12). Federal, State, and local regulations should be considered before draining or altering this area.

Cropland

These soils are not suited to cultivated crops because of ponding or seasonal high water table.

Pasture

These soils are not suited to pasture because of ponding or seasonal high water table and low soil strength.

Woodland

- These very poorly drained soils are poorly suited to haul roads. Locating roads on higher, better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations. Consult the Water Features table for months of seasonal saturation.
- These soils, having thick organic surfaces and subject to ponding, should be avoided when locating log landings.
- Limiting timber harvesting operations to winter months when the ground is frozen is recommended for these soils with thick organic surfaces and low bearing strength.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to ponding. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

These soils are not suited for this use because of ponding, a seasonal high water table and excess organic deposits causing subsidence..

Septic Tank Absorption Fields

This unit is not suited for this use because of ponding, a seasonal high water table, and excess organic deposits.

Figure 12.—Most of the nearly level area in the foreground is made up of map units 109A, Catden muck and 99A, Timakwa muck, where decomposed organic deposits are generally greater than 16 inches deep. These soils can be valuable wetland habitat. In the background, Tunbridge, Lyman, and Knob Lock soils dominate the highest ridges while Potsdam soils occupy much of the lower hillside.

Local Roads and Streets

These soils are very limited for local roads and streets due to the potential for ponding and excess organic material. Seasonal ponding adversely affects the ease of excavation and grading and limits the bearing capacity of the soil. Subsidence of the organic material reduces the load-bearing capacity of these soils.

112A—Scio-Urban land complex, 0 to 3 percent slopes

Setting

This nearly level map unit occurs in or near the cities of Johnstown and Gloversville, and in nearby industrial or business facilities.

Map Unit Composition

Major Components
Scio: 45 percent
Urban land: 40 percent

Inclusions
Unadilla: 4 percent
Elmridge: 3 percent
Hudson: 3 percent
Windsor: 2 percent

Tonawanda: 1 percent
Unnamed: 2 percent

Included in mapping are areas of well drained Unadilla soils on slightly more convex positions. Small areas of Elmridge and Hudson soils are included in areas underlain by clayey deposits. Windsor soils are included in areas that are sandy. Inclusions of Tonawanda soils occur on footslopes and slightly concave positions.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: not assigned
Hydric soil rating:
- Scio: no
- Urban land: no

Hydrologic group:
- Scio: B/D
- Urban land: not assigned

Soil Properties and Qualities

Scio
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 36 inches
- Water table kind: apparent

Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: upland lake plains
Parent material: silty lacustrine deposits
Reaction (pH):
- 0 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
- 9 to 18 inches: very strongly acid or strongly acid (4.5 to 5.5)
- 18 to 30 inches: very strongly acid or strongly acid (4.5 to 5.5)
- 30 to 37 inches: strongly acid or moderately acid (5.1 to 6.0)
- 37 to 52 inches: strongly acid to slightly alkaline (5.1 to 7.8)
- 52 to 80 inches: strongly acid to slightly alkaline (5.1 to 7.8)

Permeability:
- 0 to 9 inches: moderate (0.6 to 2 inches/hour)
- 9 to 18 inches: moderate (0.6 to 2 inches/hour)
- 18 to 30 inches: moderate (0.6 to 2 inches/hour)
- 30 to 37 inches: moderate (0.6 to 2 inches/hour)
- 37 to 52 inches: slow to rapid (0.06 to 20 inches/hour)
- 52 to 80 inches: slow to rapid (0.06 to 20 inches/hour)

Urban land
Urban land is predominantly comprised of areas of buildings, pavement, and other impervious surfaces. Small areas of soil of varying characteristics may be intermingled with the urban land. Investigation is needed to determine specific properties of this miscellaneous soil.

Use and Management

Development
Erosion and sediment control can be problems in some places where the Scio part of this map unit is cleared for development. Erecting erosion and sediment control

structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table of the Scio part of this unit limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through the Scio part of this unit limits the absorption and proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table of the Scio part of this unit impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

114B—Windsor-Urban land complex, 3 to 8 percent slopes

Setting

This gently sloping unit occurs in or near the cities of Johnstown and Gloversville, and in nearby industrial or business facilities.

Map Unit Composition

Major Components
Windsor: 60 percent
Urban land: 30 percent

Inclusions
Udipsamments, smoothed: 3 percent
Udorthents, smoothed: 3 percent
Broadalbin: 2 percent
Mosherville: 1 percent
Scio: 1 percent

Included in mapping are areas dominated by sandy cut and fill material referred to as Udipsamments smoothed and areas of loamy cut and fill material referred to as Udorthents smoothed. Broadalbin and Mosherville soils are included where this unit merges with till landforms. Scio soils are also included in areas having a thick silt loam or very fine sandy loam mantle.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: not assigned
Hydric soil rating:
  Windsor: no
  Urban land: no

Hydrologic group:
  Windsor: A
  Urban land: not assigned

Soil Properties and Qualities

Windsor
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, outwash plains, terraces
Parent material: sandy outwash
Reaction (pH):
  0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
  2 to 11 inches: very strongly acid to moderately acid (4.5 to 6.0)
  11 to 21 inches: very strongly acid to moderately acid (4.5 to 6.0)
  21 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
  25 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  2 to 11 inches: rapid (6 to 20 inches/hour)
  11 to 21 inches: rapid (6 to 20 inches/hour)
  21 to 25 inches: rapid (6 to 20 inches/hour)
  25 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Urban land
Urban land is predominantly comprised of areas of buildings, pavement, and other impervious surfaces. Small areas of soil of varying characteristics may be intermingled with the urban land. Investigation is needed to determine specific properties of this miscellaneous soil.

Use and Management

Development
Erosion and sediment control can be problems where the Windsor part of this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
There are no major soil limitations for this use in the Windsor part of this map unit.

Septic Tank Absorption Fields
Excessive rates of water movement or seepage through parts of the soil substrata of Windsor soils may limit the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute the water table. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
There are no major soil limitations for this use in the Windsor part of this map unit.

114C—Windsor-Urban land complex, 8 to 15 percent slopes

Setting

This strongly sloping unit occurs in the cities of Johnstown and Gloversville, and in nearby industrial or business facilities.

Map Unit Composition

Major Components
Windsor: 60 percent
Urban land: 30 percent

Inclusions
Udipsamments, smoothed: 4 percent
Udorthents, smoothed: 3 percent
Broadalbin: 2 percent
Scio: 1 percent

Included in mapping are areas dominated by sandy cut and fill material referred to as Udipsamments smoothed and areas of loamy cut and fill material referred to as Udorthents smoothed. Broadalbin soils are included where this unit merges with till landforms. Scio soils are also included in areas having a thick silt loam or very fine sandy loam mantle.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: not assigned
Hydric soil rating:
  Windsor: no
  Urban land: no
Hydrologic group:
  Windsor: A
  Urban land: not assigned

Soil Properties and Qualities

Windsor
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, outwash plains, terraces
Parent material: sandy outwash
Reaction (pH):
  0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in $CaCl_2$)
  2 to 11 inches: very strongly acid to moderately acid (4.5 to 6.0)
  11 to 21 inches: very strongly acid to moderately acid (4.5 to 6.0)
  21 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
  25 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
- 0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 11 inches: rapid (6 to 20 inches/hour)
- 11 to 21 inches: rapid (6 to 20 inches/hour)
- 21 to 25 inches: rapid (6 to 20 inches/hour)
- 25 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Urban land

Urban land is predominantly comprised of areas of buildings, pavement, and other impervious surfaces. Small areas of soil of varying characteristics may be intermingled with the urban land. Investigation is needed to determine specific properties of this miscellaneous soil.

Use and Management

Development

Erosion and sediment control can be problems where the Windsor part of this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The strongly sloping areas of this unit adversely affects the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

Excessive rates of water movement or seepage through the substrata of the Windsor part of this map unit may limit the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute the ground water. Because of these strongly sloping areas, special design and installation techniques may be needed for distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The slope of this unit impedes trafficability of heavy machinery and increases the difficulty and cost of building roads. Placing roads on the contour can help overcome this limitation.

114D—Windsor-Urban land complex, 15 to 25 percent slopes

Setting

This moderately steep unit occurs in the cities of Johnstown and Gloversville, and in nearby industrial or business facilities.

Map Unit Composition

Major Components

Windsor: 60 percent
Urban land: 30 percent

Inclusions

Udipsamments, smoothed: 4 percent
Udorthents, smoothed: 3 percent

Broadalbin: 2 percent
Unadilla: 1 percent

Included in mapping are areas dominated by sandy cut and fill material referred to as Udipsamments smoothed and areas of loamy cut and fill material referred to as Udorthents smoothed. Broadalbin soils are included where this unit merges with till landforms. Unadilla soils are also included in areas having a thick silt loam or very fine sandy loam mantle.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: not assigned
Hydric soil rating:
  Windsor: no
  Urban land: no
Hydrologic group:
  Windsor: A
  Urban land: not assigned

Soil Properties and Qualities

Windsor
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, outwash plains, terraces
Parent material: sandy outwash
Reaction (pH):
  0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
  2 to 11 inches: very strongly acid to moderately acid (4.5 to 6.0)
  11 to 21 inches: very strongly acid to moderately acid (4.5 to 6.0)
  21 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
  25 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  2 to 11 inches: rapid (6 to 20 inches/hour)
  11 to 21 inches: rapid (6 to 20 inches/hour)
  21 to 25 inches: rapid (6 to 20 inches/hour)
  25 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Urban land
Urban land is predominantly comprised of areas of buildings, pavement, and other impervious surfaces. Small areas of soil of varying characteristics may be intermingled with the urban land. Investigation is needed to determine specific properties of this miscellaneous soil.

Use and Management

Development
Erosion and sediment control can be severe problems where the Windsor part of this map unit is cleared for development. Minimizing soil disturbance, erecting erosion

and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep slope of this unit adversely affects the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Excessive rates of water movement or seepage through the substrata of the Windsor part of this unit may limit the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute the ground water. Because of the moderately steep slope, special design and installation techniques are needed for distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep slopes of this unit impede trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

115B—Udipsamments, 0 to 8 percent slopes, smoothed

Setting

This nearly level and gently sloping map unit is in urban or industrial areas of the Mohawk Valley where the original sandy landscapes have been excavated or filled.

Map Unit Composition

Major Components
Udipsamments, smoothed: 85 percent

Inclusions
Agawam: 5 percent
Windsor: 5 percent
Unnamed: 5 percent

Included in this map unit are areas of Agawam and Windsor soils where the ABC soil profile is still present and relatively undisturbed by human activity.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Udipsamments, smoothed: no
Hydrologic group:
    Udipsamments, smoothed: A

Soil Properties and Qualities

Udipsamments, smoothed
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches

Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low or low
Potential frost action: low
Shrink-swell potential: low
Landform: cut or filled leveled lands
Parent material: human transported material over sandy outwash
Reaction (pH):
  0 to 4 inches: very strongly acid to neutral (4.5 to 7.3)
  4 to 13 inches: strongly acid to moderately alkaline (5.1 to 8.4)
  13 to 32 inches: strongly acid to moderately alkaline (5.1 to 8.4)
  32 to 37 inches: strongly acid to moderately alkaline (5.1 to 8.4)
  37 to 60 inches: strongly acid to moderately alkaline (5.1 to 8.4)
Permeability:
  0 to 4 inches: rapid (6 to 20 inches/hour)
  4 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
  13 to 32 inches: rapid or very rapid (6 to 100 inches/hour)
  32 to 37 inches: rapid or very rapid (6 to 100 inches/hour)
  37 to 60 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland

This unit is poorly suited to cultivated crops because of thin or absent topsoil and low available water capacity. Plants may suffer from moisture stress during drier summer months because of low available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture

This unit is limited by low available water capacity in its ability to produce forage. The topsoil may be thin or absent. Plants may suffer moisture stress during the drier summer months because of low available water capacity.

Woodland

These soils have very low or low available water capacity. Managing for the more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils.

Development

Erosion and sediment control can be problems where this map unit is developed. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

There are no major soil limitations for this use.

Septic Tank Absorption Fields

Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute the ground water. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

There are no major soil limitations for this use.

116—Urban land

Setting

This nearly level unit occurs in the cities of Johnstown and Gloversville, and in nearby industrial or business facilities in the Mohawk Valley.

Map Unit Composition

Major Components
Urban land: 90 percent

Inclusions
Endoaquents, smoothed: 3 percent
Udipsamments, smoothed: 3 percent
Windsor: 2 percent
Broadalbin: 1 percent
Scio: 1 percent

Included in mapping are areas of Endoaquents and Udipsamments where cut and fill activities have taken place in the past. Inclusions of Windsor, Broadalbin and Scio soils are included in areas between buildings and roads where the ABC soil profile is still present or only slightly disturbed by human activity.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: not assigned
Hydric soil rating:
    Urban land: unranked
Hydrologic group:
    Urban land: not assigned

Urban land is predominantly comprised of areas of buildings, pavement, and other impervious surfaces (fig. 13). Small areas of soil of varying characteristics may be intermingled with the urban land. Investigation is needed to determine specific properties of this soil.

117B—Broadalbin-Urban land complex, 3 to 8 percent slopes

Setting

This gently sloping unit occurs in or near the cities of Johnstown and Gloversville, and in associated industrial or business facilities. Broadalbin soils have a fragipan or dense subsoil layer.

Map Unit Composition

Major Components
Broadalbin, moderately well drained: 50 percent
Urban land: 30 percent

Inclusions
Endoaquents, smoothed: 5 percent
Paxton: 5 percent
Mosherville: 3 percent

Figure 13.—Urban land is comprised of mainly impervious surfaces and only small areas of lawn and trees.

Udipsamments, smoothed: 3 percent
Windsor: 1 percent
Unnamed: 3 percent

Included in mapping are areas of Endoaquents and Udipsamments where cut and fill activities have taken place historically. Included areas of Paxton soils occur in places which lack a fragipan subsoil above a dense substratum. Somewhat poorly drained Mosherville soils are included on slightly concave areas and along some drainageways. Windsor soils are included in sandy soil areas.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: not assigned
Hydric soil rating:
  Broadalbin, moderately well drained: no
  Urban land: unranked
Hydrologic group:
  Broadalbin, moderately well drained: D
  Urban land: not assigned

Soil Properties and Qualities

Broadalbin, moderately well drained
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 18 to 36 inches to a fragipan
Depth to seasonal high water table: 18 to 32 inches
  Water table kind: perched

Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: drumlinoid ridges, till plains
Parent material: friable loamy eolian deposits over firm till
Reaction (pH):
- 0 to 9 inches: strongly acid to slightly acid (5.1 to 6.5)
- 9 to 17 inches: strongly acid to slightly acid (5.1 to 6.5)
- 17 to 22 inches: strongly acid to slightly acid (5.1 to 6.5)
- 22 to 36 inches: strongly acid to slightly acid (5.1 to 6.5)
- 36 to 54 inches: strongly acid to slightly alkaline (5.1 to 7.8)
- 54 to 69 inches: strongly acid to slightly alkaline (5.1 to 7.8)
- 69 to 80 inches: strongly acid to slightly alkaline (5.1 to 7.8)

Permeability:
- 0 to 9 inches: moderate (0.6 to 2 inches/hour)
- 9 to 17 inches: moderate (0.6 to 2 inches/hour)
- 17 to 22 inches: moderate (0.6 to 2 inches/hour)
- 22 to 36 inches: slow (0.06 to 0.2 inches/hour)
- 36 to 54 inches: slow (0.06 to 0.2 inches/hour)
- 54 to 69 inches: slow (0.06 to 0.2 inches/hour)
- 69 to 80 inches: slow (0.06 to 0.2 inches/hour)

Urban land

Urban land is predominantly comprised of areas of buildings, pavement, and other impervious surfaces. Small areas of soil of varying characteristics may be intermingled with the urban land. Investigation is needed to determine specific properties of this miscellaneous soil.

Use and Management

Development

Erosion and sediment control can be problems where the Broadalbin part of this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table limits the capacity of the Broadalbin part of this map unit to bear a load without movement. Special design of structures may be needed to prevent damage caused by wetness and seepage into basements. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement in the Broadalbin part of this map unit may limit absorption and proper treatment of effluent from conventional septic systems. The moderately deep soil above dense material may have insufficient filtering capacity and the dense substratum may increase the cost of proper installation of distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table may impede excavation and grading and reduces the bearing capacity of the Broadalbin part of this map unit. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of

soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce these limitations.

117C—Broadalbin-Urban land complex, 8 to 15 percent slopes

Setting

This strongly sloping unit occurs in or near the cities of Johnstown and Gloversville, and in associated industrial or business facilities. Broadalbin soils have a fragipan or dense subsoil layer.

Map Unit Composition

Major Components
Broadalbin, well drained: 45 percent
Urban land: 30 percent

Inclusions
Paxton: 7 percent
Endoaquents, smoothed: 5 percent
Udipsamments, smoothed: 5 percent
Mosherville: 2 percent
Windsor: 2 percent
Unnamed: 4 percent

Included in mapping are areas of Paxton soils which lack a fragipan subsoil above a dense substratum. Included areas of Endoaquents and Udipsamments occur where cut and fill activities have taken place historically. Somewhat poorly drained Mosherville soils are included on slightly concave areas and along some drainageways. Windsor soils are included in sandy soil areas.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: not assigned
Hydric soil rating:
    Broadalbin, well drained: no
    Urban land: unranked
Hydrologic group:
    Broadalbin, well drained: C
    Urban land: not assigned

Soil Properties and Qualities

Broadalbin, well drained
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 18 to 36 inches to a fragipan
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: drumlinoid ridges, till plains
Parent material: friable loamy eolian deposits over firm till

Reaction (pH):
- 0 to 9 inches: strongly acid to slightly acid (5.1 to 6.5)
- 9 to 17 inches: strongly acid to slightly acid (5.1 to 6.5)
- 17 to 22 inches: strongly acid to slightly acid (5.1 to 6.5)
- 22 to 36 inches: strongly acid to slightly acid (5.1 to 6.5)
- 36 to 54 inches: strongly acid to slightly alkaline (5.1 to 7.8)
- 54 to 69 inches: strongly acid to slightly alkaline (5.1 to 7.8)
- 69 to 80 inches: strongly acid to slightly alkaline (5.1 to 7.8)

Permeability:
- 0 to 9 inches: moderate (0.6 to 2 inches/hour)
- 9 to 17 inches: moderate (0.6 to 2 inches/hour)
- 17 to 22 inches: moderate (0.6 to 2 inches/hour)
- 22 to 36 inches: slow (0.06 to 0.2 inches/hour)
- 36 to 54 inches: slow (0.06 to 0.2 inches/hour)
- 54 to 69 inches: slow (0.06 to 0.2 inches/hour)
- 69 to 80 inches: slow (0.06 to 0.2 inches/hour)

Urban land

Urban land is predominantly comprised of areas of buildings, pavement, and other impervious surfaces. Small areas of soil of varying characteristics may be intermingled with the urban land. Investigation is needed to determine specific properties of this miscellaneous soil.

Use and Management

Development

Erosion and sediment control can be problems where the Broadalbin part of this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The strongly sloping conditions of the Broadalbin part of this unit influences the use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The moderately deep soil above dense material in Broadalbin soils may have insufficient filtering capacity and the dense substratum may increase the cost of proper installation of distribution lines. Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action in the Broadalbin part of this unit. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. The slope of these soils may impede trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

130B—Hudson silty clay loam, 3 to 8 percent slopes

Setting

This soil is on gently sloping glacial lake plains, and uplands mantled with lake sediments in the Mohawk Valley.

Map Unit Composition

Major Components
Hudson: 75 percent

Inclusions
Rhinebeck: 8 percent
Aeric Epiaquepts: 5 percent
Elmridge: 5 percent
Scio: 5 percent
Churchville: 2 percent

Included in mapping are areas of somewhat poorly drained Rhinebeck soils on lower and slightly concave positions. Small areas of somewhat poorly drained Aeric Epiaquepts and moderately well drained Elmridge soils occur where a loamy mantle overlies clayey deposits. Inclusions of Scio soils have less clay in the surface and subsoil. Churchville soils are included where clay is underlain by loamy till at 20 to 40 inches deep.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
Hudson: no
Hydrologic group:
Hudson: C/D

Soil Properties and Qualities

Hudson
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 36 inches
Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: moderate
Landform: proglacial lake plains
Parent material: stratified silty and clayey glaciolacustrine deposits
Reaction (pH):
0 to 6 inches: very strongly acid to neutral (4.5 to 7.3)
6 to 11 inches: very strongly acid to neutral (4.5 to 7.3)
11 to 18 inches: very strongly acid to neutral (4.5 to 7.3)
18 to 32 inches: very strongly acid to slightly alkaline (4.5 to 7.8)
32 to 60 inches: very strongly acid to slightly alkaline (4.5 to 7.8)
Permeability:
0 to 6 inches: moderately slow or moderate (0.2 to 2 inches/hour)
6 to 11 inches: moderately slow or moderate (0.2 to 2 inches/hour)
11 to 18 inches: moderately slow (0.2 to 0.6 inches/hour)
18 to 32 inches: slow (0.06 to 0.2 inches/hour)
32 to 60 inches: very slow or slow (0.01 to 0.2 inches/hour)

Use and Management

Cropland

These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Subsurface drainage in low areas may extend the period of planting and harvesting of crops.

Pasture

These soils are well suited to pasture. Erosion control may be needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Restricting grazing during wet periods will minimize compaction.

Woodland

- Haul roads are limited by the seasonal high water table and clayey nature of these soils. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Limiting construction activities to dry or frozen ground conditions will help overcome construction limitations of haul roads due to clayey soils.
- Avoiding construction of log landings during periods of seasonal wetness, designing drainage features such as diversion ditches, and applying coarse-grained base material will help overcome limitations due to seasonal wetness and clayey conditions. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness and clayey conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table limits the capacity of these soils to bear a load without movement and may cause seepage into basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made. The shrink-swell potential in these soils results in a limited capacity to support a load without movement and may cause shifting foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through these soils limit the absorption and proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table may impede excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost

action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations. Because shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are not recommended for use as a base material. Adding coarse-textured subgrade material over these clayey soils may overcome this limitation.

130C—Hudson silty clay loam, 8 to 15 percent slopes

Setting

This soil is on strongly sloping glacial lake plains, and uplands mantled with lake sediments in the Mohawk Valley.

Map Unit Composition

Major Components
Hudson: 80 percent

Inclusions
Unadilla: 8 percent
Rhinebeck: 5 percent
Elmridge: 3 percent
Aeric Epiaquepts: 2 percent
Churchville: 2 percent

Included in mapping are areas of well drained Unadilla soils having less clay in the surface and subsoil. Inclusions of somewhat poorly drained Rhinebeck soils occur on lower and slightly concave positions. Small areas of somewhat poorly drained Aeric Epiaquepts and moderately well drained Elmridge soils occur where a loamy mantle overlies clayey deposits. Inclusions of Churchville soils are included where clay is underlain by loamy till at 20 to 40 inches deep.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
  Hudson: no
Hydrologic group:
  Hudson: C/D

Soil Properties and Qualities

Hudson
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 36 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: moderate
Landform: proglacial lake plains
Parent material: stratified silty and clayey glaciolacustrine deposits

Reaction (pH):
0 to 6 inches: very strongly acid to neutral (4.5 to 7.3)
6 to 11 inches: very strongly acid to neutral (4.5 to 7.3)
11 to 18 inches: very strongly acid to neutral (4.5 to 7.3)
18 to 32 inches: very strongly acid to slightly alkaline (4.5 to 7.8)
32 to 60 inches: very strongly acid to slightly alkaline (4.5 to 7.8)
Permeability:
0 to 6 inches: moderately slow or moderate (0.2 to 2 inches/hour)
6 to 11 inches: moderately slow or moderate (0.2 to 2 inches/hour)
11 to 18 inches: moderately slow (0.2 to 0.6 inches/hour)
18 to 32 inches: slow (0.06 to 0.2 inches/hour)
32 to 60 inches: very slow or slow (0.01 to 0.2 inches/hour)

Use and Management

Cropland

These clayey soils are strongly sloping and subject to severe erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Controlling machine traffic during wet periods can minimize soil compaction. Subsurface drainage in low areas may extend the period of planting and harvesting of crops.

Pasture

These soils are well suited to pasture. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion. Restricting grazing during wet periods can minimize compaction.

Woodland

- Haul roads are limited by the seasonal high water table and clayey nature of these soils. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness and clayey conditions. Consult the Water Features table for months of seasonal saturation.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness and clayey conditions. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness and clayey conditions. Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control

structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table limits the capacity of these soils to bear a load without movement and may cause seepage into basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance. Shrink-swell potential in these soils results in a limited capacity to support a load without movement and may cause shifting foundations and cracking of basement walls and floors. Strongly sloping conditions can adversely influence the use of machinery and ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through these soils limit the absorption and proper treatment of effluent from conventional septic systems. Because of strongly sloping areas, special design and installation techniques may be needed for distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table may impede excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations. Because shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are not recommended for use as a base material. Adding coarse-textured subgrade material over these clayey soils may overcome this limitation. Strongly sloping conditions of these soils may diminish trafficability of heavy machinery and increase the cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

134A—Rhinebeck silty clay loam, 0 to 3 percent slopes

Setting

This soil is on nearly level glacial lake plains and uplands mantled with lake sediments in the Mohawk Valley.

Map Unit Composition

Major Components
Rhinebeck: 75 percent

Inclusions
Churchville: 6 percent
Aeric Epiaquepts: 5 percent
Madalin: 5 percent
Tonawanda: 3 percent
Hudson: 2 percent
Unnamed: 4 percent

Included in mapping are areas of Churchville soils where clay is underlain by loamy till at 20 to 40 inches. Small areas of somewhat poorly drained Aeric Epiaquepts occur

where a loamy mantle overlies clayey deposits. Inclusions of poorly drained Madalin soils occur in depressions and along drainageways. Small inclusions of Tonawanda soils have less clay in the surface and subsoil. Also, moderately well drained Hudson soils are included on slightly more convex positions.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
  Rhinebeck: no
Hydrologic group:
  Rhinebeck: C/D

Soil Properties and Qualities

Rhinebeck
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 10 to 18 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Landform: upland lake plains
Parent material: silty and clayey glaciolacustrine deposits
Reaction (pH):
  0 to 9 inches: strongly acid to neutral (5.1 to 7.3)
  9 to 13 inches: strongly acid to slightly alkaline (5.1 to 7.8)
  13 to 27 inches: strongly acid to slightly alkaline (5.1 to 7.8)
  27 to 34 inches: slightly acid to moderately alkaline (6.1 to 8.4)
  34 to 37 inches: slightly acid to moderately alkaline (6.1 to 8.4)
  37 to 72 inches: slightly acid to moderately alkaline (6.1 to 8.4)
Permeability:
  0 to 9 inches: moderately slow or moderate (0.2 to 2 inches/hour)
  9 to 13 inches: slow to moderate (0.06 to 2 inches/hour)
  13 to 27 inches: slow (0.06 to 0.2 inches/hour)
  27 to 34 inches: slow (0.06 to 0.2 inches/hour)
  34 to 37 inches: slow (0.06 to 0.2 inches/hour)
  37 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland

These soils are prime farmland only where drained. Systematic subsurface drainage can extend the period of planting and harvesting of crops. Clods may form if the soil is tilled when wet. Controlling traffic during wet periods can minimize soil compaction. The root system of some deep-rooted crops may be damaged by frost action.

Pasture

These soils are well suited to pasture. Excess water should be removed or diverted away from this unit. Grass or legume species that are adapted to wet soil conditions should be planted. Planting adapted species can also minimize the root damage caused by frost action. Restricting grazing during wet periods can minimize compaction. Avoiding overgrazing can also reduce the hazard of erosion.

Woodland

- Haul roads are limited by the seasonal high water table and clayey nature of these soils. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations due to seasonal wetness and clayey conditions. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness and clayey conditions. Riparian setbacks should be at least 200 feet.
- Harvest equipment operability limitations due to wetness and clayey conditions can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of these soils to bear a load without movement and can cause water problems in basements (fig. 14). Shrink-swell potential in these soils results in a limited capacity to support a load without movement and may cause shifting foundations and cracking of basement walls and floors. Special design of structures is needed to prevent damage caused by wetness and shrink-swell. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the restricted movement of fluids through these soils greatly limits the absorption and proper treatment of effluent from conventional septic systems. Costly measures may be needed to alleviate this concern. Referencing local and state regulations and installation of alternative systems may be necessary for properly developing this site. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations. Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are not recommended for use as a base material. Adding coarse-textured subgrade material over these clayey soils may overcome this limitation.

Figure 14.—Permeability is slow in the subsoil and substratum of Rhinebeck silty clay loam. Therefore, surface and subsurface water management is important for maintaining structures and parking lots, like at this hospital in Gloversville.

134B—Rhinebeck silty clay loam, 3 to 8 percent slopes

Setting

This soil is on gently sloping glacial lake plains and uplands mantled with lake sediments in the Mohawk Valley.

Map Unit Composition

Major Components
Rhinebeck: 75 percent

Inclusions
Churchville: 6 percent
Aeric Epiaquepts: 4 percent
Hudson: 4 percent
Madalin: 3 percent
Tonawanda: 3 percent
Unnamed: 5 percent

Included in mapping are areas of Churchville soils where clay is underlain by loamy till at 20 to 40 inches deep. Small areas of somewhat poorly drained Aeric Epiaquepts occur where a loamy mantle overlies clayey deposits. Moderately well drained Hudson soils are included on slightly more convex positions. Inclusions of poorly drained Madalin soils occur in depressions and along drainageways. Also, small inclusions of Tonawanda soils have less clay in the surface and subsoil.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
  Rhinebeck: no
Hydrologic group:
  Rhinebeck: C/D

Soil Properties and Qualities

Rhinebeck
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 10 to 18 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Landform: upland lake plains
Parent material: silty and clayey glaciolacustrine deposits
Reaction (pH):
  0 to 9 inches: strongly acid to neutral (5.1 to 7.3)
  9 to 13 inches: strongly acid to slightly alkaline (5.1 to 7.8)
  13 to 27 inches: strongly acid to slightly alkaline (5.1 to 7.8)
  27 to 34 inches: slightly acid to moderately alkaline (6.1 to 8.4)
  34 to 37 inches: slightly acid to moderately alkaline (6.1 to 8.4)
  37 to 72 inches: slightly acid to moderately alkaline (6.1 to 8.4)
Permeability:
  0 to 9 inches: moderately slow or moderate (0.2 to 2 inches/hour)
  9 to 13 inches: slow to moderate (0.06 to 2 inches/hour)
  13 to 27 inches: slow (0.06 to 0.2 inches/hour)
  27 to 34 inches: slow (0.06 to 0.2 inches/hour)
  34 to 37 inches: slow (0.06 to 0.2 inches/hour)
  37 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland
These soils are prime farmland only where drained. Systematic subsurface drainage may extend the period of planting and harvesting of crops. Clods may form if the soil is tilled when wet. Controlling traffic during wet periods can minimize soil compaction. The root system of some deep-rooted crops may be damaged by frost action. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.

Pasture
These soils are well suited to pasture. Excess water should be removed or diverted away from this unit. Grass or legume species that are adapted to wet soil conditions should be planted. Planting adapted species can also minimize the root damage caused by frost action. Erosion control may be needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion. Restricting grazing during wet periods can minimize compaction.

Woodland

- Haul roads are limited by the seasonal high water table and clayey nature of these soils. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations due to seasonal wetness and clayey conditions. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness and clayey conditions. Riparian setbacks should be at least 200 feet.
- Harvest equipment operability limitations due to wetness and clayey conditions can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.

Development

Erosion and sediment control can be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of these soils to bear a load without movement and can cause water problems in basements. Shrink-swell potential in these soils results in a limited capacity to support a load without movement and may cause shifting foundations and cracking of basement walls and floors. Special design of structures is needed to prevent damage caused by wetness and shrink-swell. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the restricted movement of fluids through these soils greatly limits the absorption and proper treatment of effluent from conventional septic systems. Costly measures may be needed to alleviate this concern. Referencing local and state regulations and installation of alternative systems may be necessary for properly developing this site. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations. Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are not recommended for use as a base material. Adding coarse-textured subgrade material over these clayey soils may overcome this limitation.

135A—Churchville silty clay loam, 0 to 3 percent slopes

Setting

This unit is on nearly level till plains where a relatively thin clayey deposit overlies loamy till in the Mohawk Valley.

Map Unit Composition

Major Components
Churchville: 80 percent

Inclusions
Appleton: 7 percent
Rhinebeck: 5 percent
Georgia: 3 percent
Ilion: 3 percent
Madalin: 2 percent

Included in mapping are areas of Appleton and Georgia soils where the clayey mantle is absent or too thin to qualify for Churchville soil. Small areas of Rhinebeck and Madalin soils are included in places where clayey sediments are deeper than 40 inches. Poorly drained Ilion soils are included in depressions and along drainageways.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
  Churchville: no
Hydrologic group:
  Churchville: C/D

Soil Properties and Qualities

Churchville
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 10 to 18 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Landform: proglacial lake plains, proglacial till plains
Parent material: clayey lacustrine deposits over loamy till
Reaction (pH):
  0 to 7 inches: moderately acid to neutral (5.6 to 7.3)
  7 to 11 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  11 to 20 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  20 to 25 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  25 to 41 inches: slightly alkaline or moderately alkaline (7.4 to 8.4)
  41 to 80 inches: slightly alkaline or moderately alkaline (7.4 to 8.4)
Permeability:
  0 to 7 inches: moderate (0.6 to 2 inches/hour)
  7 to 11 inches: slow (0.06 to 0.2 inches/hour)

11 to 20 inches: slow (0.06 to 0.2 inches/hour)
20 to 25 inches: slow (0.06 to 0.2 inches/hour)
25 to 41 inches: very slow or slow (0.001 to 0.2 inches/hour)
41 to 80 inches: very slow or slow (0.001 to 0.2 inches/hour)

Use and Management

Cropland

These soils are prime farmland only where drained. Systematic subsurface drainage may extend the period of planting and harvesting of crops. Clods may form if the soil is tilled when wet. Controlling traffic during wet periods can minimize soil compaction. The root system of some deep-rooted crops may be damaged by frost action.

Pasture

These soils are well suited to pasture. Excess water should be removed or diverted away from this unit. Grass or legume species that are adapted to wet soil conditions should be planted. Planting adapted species can also minimize the root damage caused by frost action. Restricting grazing during wet periods can minimize compaction. Avoiding overgrazing can also reduce the hazard of erosion

Woodland

- Haul roads are limited by the seasonal high water table and clayey nature of these soils. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations due to seasonal wetness and clayey conditions. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness and clayey conditions. Riparian setbacks should be at least 200 feet.
- Harvest equipment operability limitations due to wetness and clayey conditions can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of these soils to bear a load without movement and can cause water problems in basements. Shrink-swell potential in these soils results in a limited capacity to support a load without movement and may cause shifting foundations and cracking of basement walls and floors. Special design of structures is needed to prevent damage caused by wetness and shrink-swell. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the restricted movement of fluids through these soils greatly limits the absorption and proper treatment of effluent from conventional septic systems. Costly measures may be needed to alleviate this concern. Referencing local and state regulations and installation of alternative systems may be necessary for properly developing this site. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations. Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are not recommended for use as a base material. Adding coarse-textured subgrade material over these clayey soils may overcome this limitation.

135B—Churchville silty clay loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping till plains where a relatively thin deposit of clayey sediments overlies loamy till in the Mohawk Valley.

Map Unit Composition

Major Components
Churchville: 75 percent

Inclusions
Appleton: 9 percent
Georgia: 5 percent
Rhinebeck: 5 percent
Ilion: 2 percent
Madalin: 2 percent
Unnamed: 2 percent

Included in mapping are areas of Appleton and Georgia soils where the clayey mantle is absent or too thin to qualify for Churchville soil. Small areas of Rhinebeck and Madalin soils are included in places where clayey sediments are deeper than 40 inches. Poorly drained Ilion soils are included in depressions and along drainageways.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
    Churchville: no
Hydrologic group:
    Churchville: C/D

Soil Properties and Qualities

Churchville
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches

Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 10 to 18 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Landform: proglacial lake plains, proglacial till plains
Parent material: clayey lacustrine deposits over loamy till
Reaction (pH):
  0 to 7 inches: moderately acid to neutral (5.6 to 7.3)
  7 to 11 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  11 to 20 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  20 to 25 inches: slightly acid to slightly alkaline (6.1 to 7.8)
  25 to 41 inches: slightly alkaline or moderately alkaline (7.4 to 8.4)
  41 to 80 inches: slightly alkaline or moderately alkaline (7.4 to 8.4)
Permeability:
  0 to 7 inches: moderate (0.6 to 2 inches/hour)
  7 to 11 inches: slow (0.06 to 0.2 inches/hour)
  11 to 20 inches: slow (0.06 to 0.2 inches/hour)
  20 to 25 inches: slow (0.06 to 0.2 inches/hour)
  25 to 41 inches: very slow or slow (0.001 to 0.2 inches/hour)
  41 to 80 inches: very slow or slow (0.001 to 0.2 inches/hour)

Use and Management

Cropland

These soils are prime farmland only where drained. Systematic subsurface drainage may extend the period of planting and harvesting of crops (fig. 15). Clods may form if the soil is tilled when wet. Controlling traffic during wet periods can minimize soil compaction. The root system of some deep-rooted crops may be damaged by frost action. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.

Pasture

These soils are well suited to pasture. Excess water should be removed or diverted away from this unit. Grass or legume species that are adapted to wet soil conditions should be planted. Planting adapted species can also minimize the root damage caused by frost action. Erosion control may be needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion. Restricting grazing during wet periods can minimize compaction.

Woodland

- Haul roads are limited by the seasonal high water table and clayey nature of these soils. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations due to seasonal wetness and clayey conditions. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness and clayey conditions. Riparian setbacks should be at least 200 feet.
- Harvest equipment operability limitations due to wetness and clayey conditions can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen.

- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.

Development

Erosion and sediment control can be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of these soils to bear a load without movement and can cause water problems in basements. Shrink-swell potential in these soils results in a limited capacity to support a load without movement and may cause shifting foundations and cracking of basement walls and floors. Special design of structures is needed to prevent damage caused by wetness and shrink-swell. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Figure 15.—Most areas of Churchville silty clay loam require systematic drainage to extend the time between planting and harvest for most cultivated crops grown in Fulton County.

Photo taken by Harold Wheeler, Conservation Education Coordinator, Fulton County Soil and Water Conservation District.

Septic Tank Absorption Fields

The seasonal high water table and the restricted movement of fluids through these soils greatly limits the absorption and proper treatment of effluent from conventional septic systems. Costly measures may be needed to alleviate this concern. Referencing local and state regulations and installation of alternative systems may be necessary for properly developing this site. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations. Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are not recommended for use as a base material. Adding coarse-textured subgrade material over these clayey soils may overcome this limitation.

137A—Madalin silty clay loam, 0 to 3 percent slopes

Setting

This clayey soil is on nearly level glacial lake plains and uplands mantled with lake sediments in the Mohawk Valley (fig. 16).

Map Unit Composition

Major Components

Madalin: 75 percent

Inclusions

Aeric Epiaquepts 5 percent
Ilion: 5 percent
Rhinebeck: 5 percent
Churchville: 3 percent
Endoaquolls, frequently flooded: 2 percent
Fonda: 2 percent
Unnamed: 3 percent

Included in mapping are somewhat poorly drained areas of Aeric Epiaquepts which have moderately deep loamy material over clayey sediments. Ilion soils generally have more rock fragments throughout the profile. Somewhat poorly drained Rhinebeck soils are included on slightly higher areas within the map unit. Included are Churchville soils that are clayey over loamy till. Also included are Endoaquolls in flood prone areas along small streams. Very poorly drained Fonda soils are included where ponding commonly occurs during the year.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 4w
Hydric soil rating:
  Madalin: yes
Hydrologic group:
  Madalin: C/D

Figure 16.—This nearly level area in the foreground appears to be fairly dry; but during a typical spring, the seasonal high water table in map unit 137A, Madalin silty clay loam, is near the surface. In the background, the small drumlin is mapped 42D, Lansing loam.

Soil Properties and Qualities

Madalin
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 to 12 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Landform: depressions
Parent material: silty and clayey glaciolacustrine deposits
Reaction (pH):
  0 to 7 inches: strongly acid to slightly alkaline (5.1 to 7.8)
  7 to 12 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  12 to 18 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  18 to 30 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  30 to 46 inches: neutral to moderately alkaline (6.6 to 8.4)
  46 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
  0 to 7 inches: moderately slow (0.2 to 0.6 inches/hour)
  7 to 12 inches: very slow or slow (0.03 to 0.2 inches/hour)
  12 to 18 inches: very slow or slow (0.03 to 0.2 inches/hour)

18 to 30 inches: very slow or slow (0.03 to 0.2 inches/hour)
30 to 46 inches: very slow or slow (0.03 to 0.2 inches/hour)
46 to 72 inches: very slow or slow (0.03 to 0.2 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland

These soils are poorly suited to cultivated crops due to the seasonal high water table. The root system of some deep-rooted crops may be damaged by frost action. Clods may form if the soil is tilled when wet. Controlling traffic during wet periods can minimize soil compaction.

Pasture

These soils are limited as pasture by the seasonal high water table. Grass or legume species that are adapted to wet soil conditions should be encouraged and planted in existing fields where permitted. Planting adapted species can also minimize root damage caused by frost action. Restricting grazing during wet periods can minimize compaction.

Woodland

- Haul roads are limited by the seasonal high water table and clayey nature of these soils. Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations due to seasonal wetness and clayey conditions. Consult the Water Features table for months of seasonal saturation.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness and clayey conditions. Riparian setbacks should be at least 200 feet.
- Harvest equipment operability limitations due to wetness and clayey conditions can be overcome by avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

Other sites should be considered for this use. The seasonal high water table severely limits the capacity of these soils to bear a load without movement. Shrink-swell potential in these soils results in a limited capacity to support a load without movement and may cause shifting foundations and cracking of basement walls and floors. Special design of structures is needed to prevent damage caused by wetness and shrink-swell. The seasonal high water table will also likely restrict the period when

excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

Other sites should be considered for this use. The seasonal high water table and restricted movement of fluids through these soils greatly limit the absorption and proper treatment of effluent from conventional septic systems. Referencing local and state regulations and installation of alternative systems may be necessary for properly developing this site. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Adding suitable subgrade material to raise the roadbed may help reduce this limitation. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are not recommended for use as a base material. Adding coarse-textured subgrade material over these clayey soils may help overcome this limitation.

Correlation Note: Map unit 137A has carbonates in the pedon slightly higher than typical for the Madalin series. This should not significantly affect use and management on a local basis for most purposes.

151B—Unadilla silt loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping valley terraces and glacial lake plains in the Mohawk Valley.

Map Unit Composition

Major Components
Unadilla: 80 percent

Inclusions
Scio: 7 percent
Hudson: 5 percent
Windsor: 5 percent
Elmridge: 3 percent

Included in mapping are areas of moderately well drained Scio soils on footslopes and slight concave positions. Small areas of Hudson soils are included where there is more clay in the subsoil. Inclusions of Windsor soils occur in areas of deep sandy deposits. Elmridge soils are included where loamy material overlies silt and clay.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
  Unadilla: no
Hydrologic group:
  Unadilla: B

Soil Properties and Qualities

Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: glacial lake plains, valley terraces
Parent material: silty lacustrine deposits
Reaction (pH):
- 0 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 9 to 16 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 16 to 24 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 24 to 29 inches: strongly acid to slightly alkaline (5.1 to 7.8)
- 29 to 33 inches: strongly acid to slightly alkaline (5.1 to 7.8)
- 33 to 72 inches: strongly acid to slightly alkaline (5.1 to 7.8)

Permeability:
- 0 to 9 inches: moderate (0.6 to 2 inches/hour)
- 9 to 16 inches: moderate (0.6 to 2 inches/hour)
- 16 to 24 inches: moderate (0.6 to 2 inches/hour)
- 24 to 29 inches: moderate (0.6 to 2 inches/hour)
- 29 to 33 inches: moderate (0.6 to 2 inches/hour)
- 33 to 72 inches: moderate to rapid (0.6 to 20 inches/hour)

Use and Management

Cropland

These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion. The root system of some deep-rooted crops may be damaged by frost action.

Pasture

These soils are well suited to pasture. Erosion control may be needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Planting adapted species can minimize the root damage caused by frost action.

Woodland

There are no major soil limitations for this use.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

There are no major soil limitations for this use.

Septic Tank Absorption Fields

The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of effluent from conventional septic systems. Onsite

investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

152A—Scio silt loam, 0 to 3 percent slopes

Setting

This unit is on nearly level glacial lake plains and terraces in the Mohawk Valley.

Map Unit Composition

Major Components
Scio: 80 percent

Inclusions
Tonawanda: 7 percent
Rhinebeck: 5 percent
Hudson: 4 percent
Unadilla: 2 percent
Windsor: 2 percent

Included in mapping are areas of somewhat poorly drained Tonawanda soils on toeslopes and along drainageways. Small areas of Rhinebeck and Hudson soils are included where there is more clay in the subsoil. Well drained Unadilla soils are included on slightly more convex positions. Inclusions of Windsor soils occur in areas of deep sandy deposits.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2w
Hydric soil rating:
  Scio: no
Hydrologic group:
  Scio: B/D

Soil Properties and Qualities

Scio
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 36 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: upland lake plains
Parent material: silty lacustrine deposits
Reaction (pH):
  0 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
  9 to 18 inches: very strongly acid or strongly acid (4.5 to 5.5)

18 to 30 inches: very strongly acid or strongly acid (4.5 to 5.5)
30 to 37 inches: strongly acid or moderately acid (5.1 to 6.0)
37 to 52 inches: strongly acid to slightly alkaline (5.1 to 7.8)
52 to 80 inches: strongly acid to slightly alkaline (5.1 to 7.8)

Permeability:
0 to 9 inches: moderate (0.6 to 2 inches/hour)
9 to 18 inches: moderate (0.6 to 2 inches/hour)
18 to 30 inches: moderate (0.6 to 2 inches/hour)
30 to 37 inches: moderate (0.6 to 2 inches/hour)
37 to 52 inches: slow to rapid (0.06 to 20 inches/hour)
52 to 80 inches: slow to rapid (0.06 to 20 inches/hour)

Use and Management

Cropland

These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Subsurface drainage in low areas may extend the period of planting and harvesting of crops. Controlling traffic during wet periods can minimize soil compaction.

Pasture

These soils are well suited to pasture. Restricting grazing during wet periods can minimize compaction. Planting adapted species can minimize the root damage caused by frost action.

Woodland

- Haul roads are limited by the seasonal high water table in these soils. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Harvest equipment operability can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through these soils may limit the absorption and proper treatment of effluent from

conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table may impede excavation and grading and reduce the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

152B—Scio silt loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping glacial lake plains and terraces in the Mohawk Valley.

Map Unit Composition

Major Components

Scio: 80 percent

Inclusions

Tonawanda: 6 percent
Rhinebeck: 5 percent
Hudson: 4 percent
Unadilla: 3 percent
Windsor: 2 percent

Included in mapping are areas of somewhat poorly drained Tonawanda soils on toeslopes and along drainageways. Small areas of Rhinebeck and Hudson soils are included where there is more clay in the subsoil. Well drained Unadilla soils are included on slightly more convex positions. Inclusions of Windsor soils occur in areas of deep sandy deposits.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2w
Hydric soil rating:
    Scio: no
Hydrologic group:
    Scio: B/D

Soil Properties and Qualities

Scio

Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 36 inches
    Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: upland lake plains

Parent material: silty lacustrine deposits
Reaction (pH):
- 0 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
- 9 to 18 inches: very strongly acid or strongly acid (4.5 to 5.5)
- 18 to 30 inches: very strongly acid or strongly acid (4.5 to 5.5)
- 30 to 37 inches: strongly acid or moderately acid (5.1 to 6.0)
- 37 to 52 inches: strongly acid to slightly alkaline (5.1 to 7.8)
- 52 to 80 inches: strongly acid to slightly alkaline (5.1 to 7.8)

Permeability:
- 0 to 9 inches: moderate (0.6 to 2 inches/hour)
- 9 to 18 inches: moderate (0.6 to 2 inches/hour)
- 18 to 30 inches: moderate (0.6 to 2 inches/hour)
- 30 to 37 inches: moderate (0.6 to 2 inches/hour)
- 37 to 52 inches: slow to rapid (0.06 to 20 inches/hour)
- 52 to 80 inches: slow to rapid (0.06 to 20 inches/hour)

Use and Management

Cropland

These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Subsurface drainage in low areas may extend the period of planting and harvesting of crops. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.

Pasture

These soils are well suited to pasture. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Restricting grazing during wet periods can minimize compaction. Planting adapted species can minimize the root damage caused by frost action.

Woodland

- Haul roads are limited by the seasonal high water table in these soils. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Harvest equipment operability can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is

needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through these soils may limit the absorption and proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table may impede excavation and grading and reduce the load bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

154A—Tonawanda silt loam, 0 to 3 percent slopes

Setting

This unit is on nearly level glacial lake plains in the Mohawk Valley.

Map Unit Composition

Major Components
Tonawanda: 80 percent

Inclusions
Rhinebeck: 7 percent
Scio: 5 percent
Birdsall: 3 percent
Unnamed: 5 percent

Included in mapping are areas of Rhinebeck soils where there is more clay in the subsoil. Moderately well drained Scio soils are included on slightly higher or more convex positions. Very poorly drained Birdsall soils are included in depressions and along drainageways.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
    Tonawanda: no
Hydrologic group:
    Tonawanda: C/D

Soil Properties and Qualities

Tonawanda
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 10 to 18 inches
    Water table kind: apparent
Flooding: none

Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: glacial lake plains
Parent material: silty lacustrine deposits
Reaction (pH):
  0 to 9 inches: very strongly acid to neutral (4.5 to 7.3)
  9 to 16 inches: strongly acid to neutral (5.1 to 7.3)
  16 to 25 inches: strongly acid to neutral (5.1 to 7.3)
  25 to 34 inches: strongly acid to neutral (5.1 to 7.3)
  34 to 52 inches: moderately acid to slightly alkaline (5.6 to 7.8)
  52 to 80 inches: moderately acid to moderately alkaline (5.6 to 8.4)
Permeability:
  0 to 9 inches: moderately slow or moderate (0.2 to 2 inches/hour)
  9 to 16 inches: moderately slow or moderate (0.2 to 2 inches/hour)
  16 to 25 inches: moderately slow or moderate (0.2 to 2 inches/hour)
  25 to 34 inches: moderately slow or moderate (0.2 to 2 inches/hour)
  34 to 52 inches: moderately slow or moderate (0.2 to 2 inches/hour)
  52 to 80 inches: moderately slow or moderate (0.2 to 2 inches/hour)

Use and Management

Cropland

These soils are prime farmland only where drained. Systematic subsurface drainage may extend the period of planting and harvesting of crops. The root system of some deep-rooted crops may be damaged by frost action. Controlling machine traffic during wet periods can minimize soil compaction.

Pasture

These soils are well suited to pasture. Excess water should be removed or diverted from this unit. Grass or legume species that are adapted to wet soil conditions should be planted. Planting adapted species can also minimize the root damage caused by frost action. Restricting grazing during wet periods can minimize compaction.

Woodland

Haul roads are limited by the seasonal high water table in these soils. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.

Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.

The rutting hazard can be overcome by restricting harvesting operations during months of seasonal wetness or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders.

Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of these soils to bear a load without movement and causes wet conditions in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through these soils greatly limits the absorption and proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

154B—Tonawanda silt loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping glacial lake plains in the Mohawk Valley.

Map Unit Composition

Major Components
Tonawanda: 80 percent

Inclusions
Scio: 7 percent
Rhinebeck: 5 percent
Birdsall: 2 percent
Unnamed: 6 percent

Included in mapping are areas of moderately well drained Scio soils on slightly higher or more convex positions. Rhinebeck soils are included where there is more clay in the subsoil. Very poorly drained Birdsall soils are included in depressions and along drainageways (fig. 17).

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
Tonawanda: no
Hydrologic group:
Tonawanda: C/D

Soil Properties and Qualities

Tonawanda
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches

Figure 17.—This swale or slightly concave position in the foreground is an area mapped 154B, Tonawanda silt loam. This map unit commonly occupies positions in the landscape where water flow concentrates, creating a seasonal high water table and small included areas of wetter soils like Birdsall. Where water accumulates, there tends to be high frost heave potential especially in silty soils like Tonawanda. On a higher position near the farm buildings is map unit 72B, Broadalbin fine sandy loam, which has a deeper seasonal high water table and only moderate potential frost action.

Depth to seasonal high water table: 10 to 18 inches
Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: glacial lake plains
Parent material: silty lacustrine deposits
Reaction (pH):
0 to 9 inches: very strongly acid to neutral (4.5 to 7.3)
9 to 16 inches: strongly acid to neutral (5.1 to 7.3)
16 to 25 inches: strongly acid to neutral (5.1 to 7.3)
25 to 34 inches: strongly acid to neutral (5.1 to 7.3)
34 to 52 inches: moderately acid to slightly alkaline (5.6 to 7.8)
52 to 80 inches: moderately acid to moderately alkaline (5.6 to 8.4)
Permeability:
0 to 9 inches: moderately slow or moderate (0.2 to 2 inches/hour)
9 to 16 inches: moderately slow or moderate (0.2 to 2 inches/hour)
16 to 25 inches: moderately slow or moderate (0.2 to 2 inches/hour)
25 to 34 inches: moderately slow or moderate (0.2 to 2 inches/hour)
34 to 52 inches: moderately slow or moderate (0.2 to 2 inches/hour)
52 to 80 inches: moderately slow or moderate (0.2 to 2 inches/hour)

Use and Management

Cropland

These soils are prime farmland only where drained. Systematic subsurface drainage may extend the period of planting and harvesting of crops. The root system of some

deep-rooted crops may be damaged by frost action. Controlling machine traffic during wet periods can minimize soil compaction. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture

These soils are well suited to pasture. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion. Excess water should be removed or diverted from this unit. Grass or legume species that are adapted to wet soil conditions should be planted. Planting adapted species can also minimize the root damage caused by frost action.

Woodland

- Haul roads are limited by the seasonal high water table in these soils. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- The rutting hazard can be overcome by restricting harvesting operations during months of seasonal wetness or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.

Development

Erosion and sediment control can be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of these soils to bear a load without movement and causes wet conditions in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through these soils greatly limits the absorption and proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

157A—Birdsall mucky silt loam, 0 to 3 percent slopes

Setting

This nearly level unit occurs in depressions on till and outwash plains in the Mohawk valley.

Map Unit Composition

Major Components
Birdsall: 75 percent

Inclusions
Cheektowaga: 5 percent
Ilion: 5 percent
Madalin: 5 percent
Timakwa: 5 percent
Tonawanda: 3 percent
Scarboro: 2 percent

Included in mapping are areas of Cheektowaga soils where sandy deposits overlie clay and silt substrata. On till plains, Ilion soils are included where the soil has more rock fragments. Small areas of Madalin soils occur where the soil is high in clay. Inclusions of Timakwa and Scarboro soils occur in areas having a mantle of organic soil over sands. Also, somewhat poorly drained Tonawanda soils are included on slightly higher positions within this unit.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
  Birdsall: yes
Hydrologic group:
  Birdsall: C/D

Soil Properties and Qualities

Birdsall
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
  Water table kind: apparent
  Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: depressions
Parent material: very fine sandy and silty lacustrine deposits
Reaction (pH):
  0 to 7 inches: very strongly acid to moderately acid (4.5 to 6.0)
  7 to 15 inches: strongly acid to neutral (5.1 to 7.3)
  15 to 22 inches: strongly acid to neutral (5.1 to 7.3)
  22 to 48 inches: strongly acid to neutral (5.1 to 7.3)
  48 to 60 inches: strongly acid to neutral (5.1 to 7.3)

Permeability:
  0 to 7 inches: moderately slow or moderate (0.2 to 2 inches/hour)
  7 to 15 inches: moderately slow (0.2 to 0.6 inches/hour)
  15 to 22 inches: slow (0.06 to 0.2 inches/hour)
  22 to 48 inches: slow (0.06 to 0.2 inches/hour)
  48 to 60 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland

These soils are not suited to growing cultivated crops because of ponding and a seasonal high water table.

Pasture

These soils are poorly suited to pasture because of ponding and a seasonal high water table.

Woodland

- Haul roads are limited by the seasonal high water table in these soils. Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads due to wetness. Consult the Water Features table for months of seasonal saturation.
- These soils are subject to ponding and should be avoided when locating log landings.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to ponding. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

Other sites should be considered for this use. Because of the potential for ponding, these soils are not suitable as a site for dwellings with basements. The period when excavations can be made may be restricted to only a few months each year.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of ponding, these soils are not suitable for septic tank absorption fields.

Local Roads and Streets

These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil. Local roads and streets may also be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage may help to reduce these limitations.

160A—Agawam fine sandy loam, 0 to 3 percent slopes

Setting

This unit formed in loamy over sandy material on nearly level outwash plains and terraces in the Mohawk valley.

Map Unit Composition

Major Components
Agawam: 75 percent

Inclusions
Merrimac: 6 percent
Ninigret: 5 percent
Windsor: 5 percent
Alton: 2 percent
Unnamed: 7 percent

Included in mapping are areas of somewhat excessively drained Merrimac soils which lack contrasting textures between the subsoil and substratum. Small areas of moderately well drained Ninigret soils occur in slightly concave positions and along drainageways. Windsor soils are included in areas where the loamy subsoil is absent or too thin to qualify as Agawam soils. Alton soils are included in gravelly areas of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 1
Hydric soil rating:
    Agawam: no
Hydrologic group:
    Agawam: A

Soil Properties and Qualities

Agawam
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Landform: high outwash plains, high stream terraces
Parent material: loamy over sandy outwash
Reaction (pH):
    0 to 10 inches: very strongly acid to slightly acid (4.5 to 6.5)
    10 to 20 inches: very strongly acid to slightly acid (4.5 to 6.5)
    20 to 26 inches: very strongly acid to slightly acid (4.5 to 6.5)
    26 to 34 inches: very strongly acid to neutral (4.5 to 7.3)
    34 to 42 inches: very strongly acid to neutral (4.5 to 7.3)
    42 to 62 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
    0 to 10 inches: moderately rapid (2 to 6 inches/hour)
    10 to 20 inches: moderately rapid (2 to 6 inches/hour)

20 to 26 inches: moderately rapid (2 to 6 inches/hour)
26 to 34 inches: rapid (6 to 20 inches/hour)
34 to 42 inches: rapid (6 to 20 inches/hour)
42 to 62 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland
These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.

Pasture
These soils are well suited to pasture.

Woodland
There are no major soil limitations for this use.

Development
Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
There are no major soil limitations for this use.

Septic Tank Absorption Fields
Excessive rates of water movement or seepage through parts of the soil substrata may limit proper treatment of effluent from conventional septic systems. Installing distribution lines above the depth of the coarse-textured substrata can provide enough filter capacity in some areas. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

160B—Agawam fine sandy loam, 3 to 8 percent slopes

Setting

This unit formed in loamy over sandy material on gently sloping outwash plains and terraces in the Mohawk valley.

Map Unit Composition

Major Components
Agawam: 75 percent

Inclusions
Merrimac: 6 percent
Ninigret: 5 percent
Windsor: 5 percent
Alton: 2 percent
Unnamed: 7 percent

Included in mapping are areas of somewhat excessively drained Merrimac soils which lack contrasting textures between the subsoil and substratum. Small areas of moderately well drained Ninigret soils occur in slightly concave positions and along drainageways. Windsor soils are included in areas where the loamy subsoil is absent or too thin to qualify as Agawam soils. Alton soils are included in gravelly areas of this unit.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
  Agawam: no
Hydrologic group:
  Agawam: A

Soil Properties and Qualities

Agawam
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Landform: high stream terraces, high outwash plains
Parent material: loamy over sandy outwash
Reaction (pH):
  0 to 10 inches: very strongly acid to slightly acid (4.5 to 6.5)
  10 to 20 inches: very strongly acid to slightly acid (4.5 to 6.5)
  20 to 26 inches: very strongly acid to slightly acid (4.5 to 6.5)
  26 to 34 inches: very strongly acid to neutral (4.5 to 7.3)
  34 to 42 inches: very strongly acid to neutral (4.5 to 7.3)
  42 to 62 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 10 inches: moderately rapid (2 to 6 inches/hour)
  10 to 20 inches: moderately rapid (2 to 6 inches/hour)
  20 to 26 inches: moderately rapid (2 to 6 inches/hour)
  26 to 34 inches: rapid (6 to 20 inches/hour)
  34 to 42 inches: rapid (6 to 20 inches/hour)
  42 to 62 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland
These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.

Pasture
These soils are well suited to pasture. Erosion control may be needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland
There are no major soil limitations for this use.

Development
Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
There are no major soil limitations for this use.

Septic Tank Absorption Fields
Excessive rates of water movement or seepage through parts of the soil substrata may limit proper treatment of effluent from conventional septic systems. Installing distribution lines well above the depth of the coarse-textured substrata can provide filter capacity. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

162B—Ninigret fine sandy loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping glacial outwash plains in the Mohawk Valley.

Map Unit Composition

Major Components
Ninigret: 75 percent

Inclusions
Agawam: 5 percent
Stafford: 5 percent
Alton: 4 percent
Scio: 3 percent
Georgia: 2 percent
Windsor: 2 percent
Unnamed: 4 percent

Included in mapping are areas of well drained Agawam soils on slightly higher or more convex positions. Stafford soils are on slightly lower, more concave positions and along drainageways. Small areas of the more gravelly Alton soils occur in some places. Scio soils are included in areas that are mostly very fine sandy loam or silt loam. Inclusions of Georgia soils exist where the soil is loamy till and the substratum lacks stratification. Also included are areas of excessively drained, sandy Windsor soils.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2w

Hydric soil rating:
  Ninigret: no
Hydrologic group:
  Ninigret: B/D

Soil Properties and Qualities

Ninigret
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 36 inches
  Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: outwash plains, terraces
Parent material: coarse-loamy over sandy and gravelly glaciofluvial deposits derived from granite and/or gneiss
Reaction (pH):
  0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
  2 to 4 inches: very strongly acid to moderately acid (4.5 to 6.0)
  4 to 12 inches: very strongly acid to moderately acid (4.5 to 6.0)
  12 to 18 inches: very strongly acid to moderately acid (4.5 to 6.0)
  18 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
  25 to 35 inches: very strongly acid to slightly acid (4.5 to 6.5)
  35 to 50 inches: very strongly acid to slightly acid (4.5 to 6.5)
  50 to 62 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  2 to 4 inches: moderate (0.6 to 2 inches/hour)
  4 to 12 inches: moderate (0.6 to 2 inches/hour)
  12 to 18 inches: moderate (0.6 to 2 inches/hour)
  18 to 25 inches: moderate (0.6 to 2 inches/hour)
  25 to 35 inches: rapid or very rapid (6 to 100 inches/hour)
  35 to 50 inches: rapid or very rapid (6 to 100 inches/hour)
  50 to 62 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland

These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Subsurface drainage in low areas may extend the period of planting and harvesting of crops. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.

Pasture

These soils are well suited to pasture. Erosion control may be needed when pastures are renovated.

Woodland

- Haul roads are limited by a seasonal high water table in these soils. Avoiding construction during periods of seasonal wetness, adequate design of drainage

features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table can limit the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

Excessive rates of water movement or seepage through parts of the soil substrata may limit proper treatment of effluent from conventional septic systems. The seasonal high water table may also limit the absorption and proper treatment of effluent from septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table may impede excavation and grading and reduce the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

165A—Stafford loamy fine sand, 0 to 3 percent slopes

Setting

This unit is on nearly level glacial lake plains in the Mohawk Valley.

Map Unit Composition

Major Components

Stafford: 80 percent

Inclusions
Aeric Epiaquepts: 5 percent
Tonawanda: 5 percent
Ninigret: 4 percent
Fredon: 3 percent
Unnamed: 3 percent

Included in this unit are areas of somewhat poorly drained Aeric Epiaquepts where loamy subsoil overlies clay and silt deposits. Small areas of Tonawanda soils are included where it is mostly very fine sandy loam. Moderately well drained Ninigret and somewhat poorly drained Fredon soils are included where loamy subsoil overlies sand and/or gravel.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 3w
Hydric soil rating:
  Stafford: no
Hydrologic group:
  Stafford: A/D

Soil Properties and Qualities

Stafford
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 10 to 18 inches
  Water table kind: apparent
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Landform: glacial lake plains
Parent material: sandy glaciolacustrine deposits
Reaction (pH):
  0 to 5 inches: very strongly acid to neutral (4.5 to 7.3)
  5 to 10 inches: very strongly acid to neutral (4.5 to 7.3)
  10 to 15 inches: very strongly acid to slightly acid (4.5 to 6.5)
  15 to 28 inches: very strongly acid to slightly acid (4.5 to 6.5)
  28 to 50 inches: strongly acid to slightly acid (5.1 to 6.5)
  50 to 65 inches: strongly acid to slightly acid (5.1 to 6.5)
Permeability:
  0 to 5 inches: moderately rapid or rapid (2 to 20 inches/hour)
  5 to 10 inches: moderately rapid or rapid (2 to 20 inches/hour)
  10 to 15 inches: moderately rapid or rapid (2 to 20 inches/hour)
  15 to 28 inches: moderately rapid or rapid (2 to 20 inches/hour)
  28 to 50 inches: moderately rapid or rapid (2 to 20 inches/hour)
  50 to 65 inches: moderately rapid or rapid (2 to 20 inches/hour)

Use and Management

Cropland
These soils are limited to growing cultivated crops because of the seasonal high water table. Systematic subsurface drainage may extend the period of planting and

harvesting of crops. Plants may suffer from moisture stress during drier summer months because of low available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture

These soils are well suited to pasture. Excess water should be removed or diverted from this unit where possible. Grass or legume species that are adapted to wet soil conditions should be planted (fig. 18). Plants may suffer moisture stress during the drier summer months because of low available water capacity.

Woodland

- Haul roads are limited by the seasonal high water table. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of these soils to bear a load without movement and causes wet basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of effluent from conventional septic systems. Excessive rates of water movement or seepage through parts of the soil substrata may also limit the proper treatment of effluent from septic systems in some areas. Poorly treated effluent can pollute the ground water. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

Figure 18.—The flatter area of this pasture is mostly mapped 165A, Stafford, loamy fine sand. Glacial lake plains like this area can be quite complex regarding soil types. Inclusions of Tonawanda silt loam and Fredon loam are common. Grass or legume species that are adapted to wet soil conditions should be planted. The higher area in the back of this field is Lansing and Agawam soils.

170B—Windsor loamy sand, 2 to 8 percent slopes

Setting

This unit is on gently sloping glacial outwash plains and terraces in the Mohawk Valley.

Map Unit Composition

Major Components
Windsor: 75 percent

Inclusions
Agawam: 5 percent
Alton: 5 percent
Merrimac: 5 percent
Windsor, loamy very fine sand: 5 percent
Ninigret: 3 percent
Unadilla: 2 percent

Included in mapping are areas of somewhat excessively drained Merrimac soils, well drained Agawam soils and moderately well drained Ninigret soils having a loamy mantle overlying sandy material. Inclusions of Alton soils have a higher content of gravel than Windsor soils. There are small areas of soils like Windsor but with more very fine sands. Also included are areas of silty Unadilla soils.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3s
Hydric soil rating:
  Windsor: no
Hydrologic group:
  Windsor: A

Soil Properties and Qualities

Windsor
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, outwash plains, terraces
Parent material: sandy outwash
Reaction (pH):
  0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
  2 to 11 inches: very strongly acid to moderately acid (4.5 to 6.0)
  11 to 21 inches: very strongly acid to moderately acid (4.5 to 6.0)
  21 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
  25 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  2 to 11 inches: rapid (6 to 20 inches/hour)
  11 to 21 inches: rapid (6 to 20 inches/hour)
  21 to 25 inches: rapid (6 to 20 inches/hour)
  25 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland
These soils are limited by droughtiness during prolonged dry periods. Plants may suffer from moisture stress during drier summer months because of low available water capacity in many areas of this unit. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture. Using a system of conservation tillage and planting cover crops may reduce the runoff rate, improve water holding capacity, and help to minimize soil loss by erosion.

Pasture
These soils are well suited to pasture. Plants may suffer moisture stress during the drier summer months because of low available water capacity in many areas of this unit. Erosion control may be needed when pastures are renovated.

Woodland
Managing for more drought tolerant timber species will minimize seedling mortality due to low water holding capacity in many areas of these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development
Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control

structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

There are no major soil limitations for this use.

Septic Tank Absorption Fields

Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of effluent from conventional septic systems in some areas. Poorly treated effluent may pollute the ground water. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

There are no major soil limitations for this use.

170C—Windsor loamy sand, 8 to 15 percent slopes

Setting

This unit is on strongly sloping glacial outwash plains and terraces in the Mohawk Valley.

Map Unit Composition

Major Components
Windsor: 80 percent

Inclusions
Agawam: 5 percent
Alton: 5 percent
Merrimac: 5 percent
Unadilla: 4 percent
Ninigret: 1 percent

Included in mapping are areas of somewhat excessively drained Merrimac soils, well drained Agawam soils and moderately well drained Ninigret soils having a loamy mantle overlying sandy material. Inclusions of Alton soils have a higher content of gravel than Windsor soils. Also included are areas of silty Unadilla soils.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4s
Hydric soil rating:
  Windsor: no
Hydrologic group:
  Windsor: A

Soil Properties and Qualities

Windsor
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low to moderate

Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, outwash plains, terraces
Parent material: sandy outwash
Reaction (pH):
  0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in $CaCl_2$)
  2 to 11 inches: very strongly acid to moderately acid (4.5 to 6.0)
  11 to 21 inches: very strongly acid to moderately acid (4.5 to 6.0)
  21 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
  25 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  2 to 11 inches: rapid (6 to 20 inches/hour)
  11 to 21 inches: rapid (6 to 20 inches/hour)
  21 to 25 inches: rapid (6 to 20 inches/hour)
  25 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland

These soils are limited by droughtiness during prolonged dry periods and risk of erosion on long slopes. Plants may suffer from moisture stress during drier summer months because of low available water capacity in many areas of this unit. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture. Using a system of conservation tillage and planting cover crops may reduce the runoff rate, improve water holding capacity, and help to minimize soil loss by erosion.

Pasture

These soils are limited for pastures because of droughtiness and potential erosion. Plants may suffer moisture stress during the drier summer months because of low available water capacity in many areas of this unit. Erosion control is needed when pastures are renovated. Overgrazing should be avoided to deter erosion and to allow forage regrowth.

Woodland

Managing for more drought tolerant timber species will minimize seedling mortality due to low water holding capacity in many areas of these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

These strongly sloping soils can create unsafe conditions for machinery use and more difficult excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

Excessive rates of water movement or seepage through parts of the soil substrata may limit proper treatment of effluent from conventional septic systems in some areas. Poorly treated effluent may pollute the ground water. Because of strongly sloping areas, special design and installation techniques may be needed for distribution lines.

Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

These strongly sloping soils impede trafficability of heavy machinery and increase the cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

170D—Windsor loamy sand, 15 to 25 percent slopes

Setting

This unit is on moderately steep areas of glacial outwash plains and terraces in the Mohawk Valley.

Map Unit Composition

Major Components
Windsor: 80 percent

Inclusions
Alton: 5 percent
Hinckley: 5 percent
Merrimac: 3 percent
Unadilla: 2 percent
Unnamed: 5 percent

Included in mapping are areas of Alton and Hinckley soils which have a higher content of gravel than Windsor soils. Small inclusions of somewhat excessively drained Merrimac soils occur in areas having a loamy mantle overlying sandy material. Also included are small areas of Unadilla soils which are dominantly silt loam or very fine sandy loam.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Windsor: no
Hydrologic group:
    Windsor: A

Soil Properties and Qualities

Windsor
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low or low
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, outwash plains, terraces
Parent material: sandy outwash
Reaction (pH):
    0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
    2 to 11 inches: very strongly acid to moderately acid (4.5 to 6.0)

11 to 21 inches: very strongly acid to moderately acid (4.5 to 6.0)
21 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
25 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 11 inches: rapid (6 to 20 inches/hour)
11 to 21 inches: rapid (6 to 20 inches/hour)
21 to 25 inches: rapid (6 to 20 inches/hour)
25 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland

These soils are poorly suited to growing cultivated crops because of moderately steep slopes. Using a system of conservation tillage and planting cover crops may reduce the runoff rate, improve water holding capacity, and help to minimize soil loss by erosion. Plants may suffer from moisture stress during drier summer months because of low available water capacity in many areas of this unit.

Pasture

These soils are limited for pastures because of droughtiness and potential erosion. Erosion control is needed when pastures are renovated. Overgrazing should be avoided to deter erosion and to allow forage regrowth. Plants may suffer moisture stress during the drier summer months because of low available water capacity in many areas of this unit.

Woodland

- Haul roads are limited by these moderately steep and sandy soils. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads. Applying a gravel base material during construction of haul roads will help overcome limitations due to sandy surface layers.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 100 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during unusually wet conditions.
- Managing for more drought tolerant timber species will minimize seedling mortality due to low water holding capacity in many areas of these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep slope adversely influences the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Excessive rates of water movement or seepage through parts of the soil substrata may limit proper treatment of effluent from conventional septic systems. The

moderately steep slope makes these soils poorly suited for this use. Poorly treated effluent can pollute the ground water. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep slope of these soils impedes trafficability of heavy machinery and increases the cost of building roads and streets. Special designs may be necessary. Routing roads around this unit may significantly reduce construction and maintenance costs.

179A—Scarboro mucky loamy sand, 0 to 3 percent slopes

Setting

This level or nearly level unit is in depressions on glacial outwash plains and terraces in the Mohawk Valley.

Map Unit Composition

Major Components
Scarboro: 75 percent

Inclusions
Timakwa: 8 percent
Fredon: 5 percent
Birdsall: 4 percent
Stafford: 3 percent
Unnamed: 5 percent

Included in mapping are areas of Timakwa soils where the organic surface layer is thicker than 16 inches. Fredon soils are included on slightly higher positions having loamy subsoil over sand and gravel substrata. Small areas of Birdsall soils are included where very fine sandy loam and silt loam dominate. Also included on slightly higher positions are somewhat poorly drained Stafford soils.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
  Scarboro: yes
Hydrologic group:
  Scarboro: A/D

Soil Properties and Qualities

Scarboro
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
  Water table kind: apparent
  Ponding: frequent

Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: depressions
Parent material: sandy glaciofluvial deposits
Reaction (pH):
    0 to 8 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
    8 to 11 inches: very strongly acid to moderately acid (4.5 to 6.0)
    11 to 24 inches: very strongly acid to moderately acid (4.5 to 6.0)
    24 to 45 inches: very strongly acid to slightly alkaline (4.5 to 7.8)
    45 to 64 inches: very strongly acid to slightly alkaline (4.5 to 7.8)
Permeability:
    0 to 8 inches: rapid (6 to 20 inches/hour)
    8 to 11 inches: rapid (6 to 20 inches/hour)
    11 to 24 inches: rapid (6 to 20 inches/hour)
    24 to 45 inches: rapid or very rapid (6 to 100 inches/hour)
    45 to 64 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland

These soils are not suited to growing cultivated crops because of ponding and a seasonal high water table.

Pasture

These soils are not suited to pasture because of ponding and a seasonal high water table.

Woodland

- Haul roads are limited on these soils because of ponding and the seasonal high water table. Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads due to wetness. Consult the Water Features table for months of seasonal saturation.
- These soils are subject to ponding and should be avoided when locating log landings.
- Limiting timber harvesting operations to winter months when the ground is frozen is recommended for these soils with thick organic surfaces and low bearing strength.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to ponding. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

Other sites should be considered for this use. Because of the potential for ponding, these soils are not suitable for dwellings with basements.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of ponding, these soils are not suitable as a site for septic tank absorption fields.

Local Roads and Streets

These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding adversely affects the ease of excavation and grading and limits the bearing capacity of the soil. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

182A—Elmridge fine sandy loam, 0 to 3 percent slopes

Setting

This unit is on nearly level glacial lake plains in the Mohawk valley. It consists of loamy soil underlain by silt and clay.

Map Unit Composition

Major Components
Elmridge: 75 percent

Inclusions
Aeric Epiaquepts: 8 percent
Rhinebeck: 7 percent
Scio: 4 percent
Hudson: 3 percent
Ninigret: 3 percent

Included in mapping are areas of somewhat poorly drained Aeric Epiaquepts on slightly lower or more concave positions. Inclusions of somewhat poorly drained Rhinebeck and moderately well drained Hudson soils occur where the subsoil has more clay. Small areas of Scio soils are included where the substratum has less clay. Ninigret soils are included in areas where the substratum is sand and/or gravel.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2w
Hydric soil rating:
  Elmridge: no
Hydrologic group:
  Elmridge: C/D

Soil Properties and Qualities

Elmridge
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 18 to 40 inches to an abrupt textural change
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: moderate
Landform: proglacial lake plains
Parent material: loamy over clayey glaciolacustrine deposits

Reaction (pH):
- 0 to 11 inches: very strongly acid to neutral (4.5 to 7.3)
- 11 to 20 inches: strongly acid to neutral (5.1 to 7.3)
- 20 to 25 inches: strongly acid to neutral (5.1 to 7.3)
- 25 to 34 inches: moderately acid to slightly alkaline (5.6 to 7.8)
- 34 to 60 inches: moderately acid to slightly alkaline (5.6 to 7.8)

Permeability:
- 0 to 11 inches: moderately rapid (2 to 6 inches/hour)
- 11 to 20 inches: moderately rapid (2 to 6 inches/hour)
- 20 to 25 inches: moderately rapid (2 to 6 inches/hour)
- 25 to 34 inches: very slow or slow (0.001 to 0.2 inches/hour)
- 34 to 60 inches: very slow or slow (0.001 to 0.2 inches/hour)

Use and Management

Cropland

These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Subsurface drainage in low areas may extend the period of planting and harvesting of crops.

Pasture

These soils are well suited to pasture.

Woodland

- Haul roads are limited by the seasonal high water table. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- The rutting hazard can be minimized on these soils by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance. The shrink-swell potential in these soils results in a limited capacity to support a load without movement and may cause shifting foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields

The seasonal high water table may limit the absorption and proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table may impede excavation and grading and reduce the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations. Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are not recommended for use as a base material. Adding coarse-textured subgrade material over the clayey substrata can help overcome this limitation.

Correlation Note: Map units 182A and B have some strata of loamy material in the clayey 2C horizon which are outside the range of the Elmridge series. This should not significantly affect use and management on a local basis for most purposes.

182B—Elmridge fine sandy loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping glacial lake plains in the Mohawk valley. It consists of loamy soil underlain by silt and clay.

Map Unit Composition

Major Components
Elmridge: 75 percent

Inclusions
Hudson: 7 percent
Aeric Epiaquepts: 6 percent
Rhinebeck: 5 percent
Scio: 4 percent
Ninigret: 3 percent

Included in mapping are areas of moderately well drained Hudson and somewhat poorly drained Rhinebeck soils where the subsoil has more clay. Somewhat poorly drained Aeric Epiaquepts occur on slightly lower or more concave positions. Small areas of Scio soils are included where the substratum has less clay. Ninigret soils are included in areas where the substratum is sand and/or gravel.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2w
Hydric soil rating:
    Elmridge: no
Hydrologic group:
    Elmridge: C/D

Soil Properties and Qualities

Elmridge
Drainage class: moderately well drained

Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 18 to 40 inches to an abrupt textural change
Depth to seasonal high water table: 18 to 30 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: moderate
Landform: proglacial lake plains
Parent material: loamy over clayey glaciolacustrine deposits
Reaction (pH):
    0 to 11 inches: very strongly acid to neutral (4.5 to 7.3)
    11 to 20 inches: strongly acid to neutral (5.1 to 7.3)
    20 to 25 inches: strongly acid to neutral (5.1 to 7.3)
    25 to 34 inches: moderately acid to slightly alkaline (5.6 to 7.8)
    34 to 60 inches: moderately acid to slightly alkaline (5.6 to 7.8)
Permeability:
    0 to 11 inches: moderately rapid (2 to 6 inches/hour)
    11 to 20 inches: moderately rapid (2 to 6 inches/hour)
    20 to 25 inches: moderately rapid (2 to 6 inches/hour)
    25 to 34 inches: very slow or slow (0.001 to 0.2 inches/hour)
    34 to 60 inches: very slow or slow (0.001 to 0.2 inches/hour)

Use and Management

Cropland

These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion. Subsurface drainage in low areas may extend the period of planting and harvesting of crops.

Pasture

These soils are well suited to pasture. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

- Haul roads are limited by the seasonal high water table. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- The rutting hazard can be minimized on these soils by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance. The shrink-swell potential in these soils results in a limited capacity to support a load without movement and may cause shifting foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields

The seasonal high water table may limit the absorption and proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table may impede excavation and grading and reduce the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations. Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are not recommended for use as a base material. Adding coarse-textured subgrade material over the clayey substrata can help overcome this limitation.

Correlation Note: Map units 182A and 182B have some strata of loamy material in the clayey 2C horizon which are outside the range of the Elmridge series. This should not significantly affect use and management on a local basis for most purposes.

187A—Aeric Epiaquepts, 0 to 3 percent slopes

Setting

This unit is on nearly level glacial lake plains in the Mohawk Valley. It consists of loamy soil underlain by silt and clay.

Map Unit Composition

Major Components

Aeric Epiaquepts, somewhat poorly drained: 50 percent
Aeric Epiaquepts, poorly drained: 30 percent

Inclusions

Rhinebeck: 6 percent
Birdsall: 5 percent
Tonawanda: 5 percent
Madalin: 4 percent

Included in mapping are areas of Rhinebeck and Madalin soils having more clay in the subsoil. Also included are Birdsall and Tonawanda soils having substrata with less clay than in Aeric Epiaquepts.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
  Aeric Epiaquepts, somewhat poorly drained: no
  Aeric Epiaquepts, poorly drained: yes
Hydrologic group:
  Aeric Epiaquepts, somewhat poorly drained: C/D
  Aeric Epiaquepts, poorly drained: C/D

Soil Properties and Qualities

Aeric Epiaquepts, somewhat poorly drained
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 18 to 40 inches to an abrupt textural change
Depth to seasonal high water table: 10 to 18 inches
  Water table kind: perched
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate
Landform: lake plains
Parent material: loamy over clayey glaciolacustrine deposits
Reaction (pH):
  0 to 1 inch: ultra acid to slightly acid (1.8 to 6.5 in CaCl2)
  1 to 4 inches: extremely acid to neutral (3.5 to 7.3)
  4 to 8 inches: strongly acid to neutral (5.1 to 7.3)
  8 to 13 inches: strongly acid to neutral (5.1 to 7.3)
  13 to 33 inches: strongly acid to neutral (5.1 to 7.3)
  33 to 45 inches: moderately acid to moderately alkaline (5.6 to 8.4)
  45 to 60 inches: moderately acid to moderately alkaline (5.6 to 8.4)
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 4 inches: moderately rapid (2 to 6 inches/hour)
  4 to 8 inches: moderately rapid (2 to 6 inches/hour)
  8 to 13 inches: moderately rapid (2 to 6 inches/hour)
  13 to 33 inches: moderately rapid (2 to 6 inches/hour)
  33 to 45 inches: very slow or slow (0.001 to 0.2 inches/hour)
  45 to 60 inches: very slow or slow (0.001 to 0.2 inches/hour)

Aeric Epiaquepts, poorly drained
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 18 to 40 inches to an abrupt textural change
Depth to seasonal high water table: 0 to 18 inches
  Water table kind: perched
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: moderate

Landform: lake plains
Parent material: loamy over clayey glaciolacustrine deposits
Reaction (pH):
- 0 to 1 inch: ultra acid to slightly acid (1.8 to 6.5 in CaCl2)
- 1 to 4 inches: extremely acid to neutral (3.5 to 7.3)
- 4 to 8 inches: strongly acid to neutral (5.1 to 7.3)
- 8 to 13 inches: strongly acid to neutral (5.1 to 7.3)
- 13 to 33 inches: strongly acid to neutral (5.1 to 7.3)
- 33 to 45 inches: moderately acid to moderately alkaline (5.6 to 8.4)
- 45 to 60 inches: moderately acid to moderately alkaline (5.6 to 8.4)

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 4 inches: moderately rapid (2 to 6 inches/hour)
- 4 to 8 inches: moderately rapid (2 to 6 inches/hour)
- 8 to 13 inches: moderately rapid (2 to 6 inches/hour)
- 13 to 33 inches: moderately rapid (2 to 6 inches/hour)
- 33 to 45 inches: very slow or slow (0.001 to 0.2 inches/hour)
- 45 to 60 inches: very slow or slow (0.001 to 0.2 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland

These soils are limited for growing cultivated crops because of the seasonal high water table. If regulations permit, systematic subsurface drainage in somewhat poorly parts of this unit may extend the period of planting and harvesting of crops. The root system of some deep-rooted crops may be damaged by frost action.

Pasture

These soils are limited for pasture because of the seasonal high water table. If regulations permit, excess water should be removed or diverted from this unit. Grass or legume species that are adapted to wet soil conditions should be managed. Planting adapted species can also minimize the root damage caused by frost action.

Woodland

- Haul roads are limited by the seasonal high water table in these soils. Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads due to wetness. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The seasonal high water table severely limits the capacity of these soils to bear a load without movement and causes wet basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance. The shrink-swell potential in these soils results in a limited capacity to support a load without movement and may cause shifting foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields

Other sites should be considered for this use. The seasonal high water table greatly limits the absorption and proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the roadbed may help reduce this limitation. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are not recommended for use as a base material. Adding coarse-textured subgrade material over the clayey substrata can help overcome this limitation.

Correlation Note: Map unit 187A was intended to be the Shaker series. It was declined to add the somewhat poorly drained class to the series range to keep Shaker ‘always hydric’. The map unit is changed to a ‘Taxon Above Family’ unit, Aeric Epiaquepts.

189A—Cheektowaga mucky very fine sandy loam, 0 to 3 percent slopes

Setting

This unit is on nearly level glacial lake plains in the Mohawk Valley. It consists of mostly sandy soil underlain by silt and clay.

Map Unit Composition

Major Components

Cheektowaga: 75 percent

Inclusions

Madalin: 7 percent

Aeric Epiaquepts: 6 percent
Birdsall: 3 percent
Scarboro: 3 percent
Fonda: 2 percent
Unnamed: 4 percent

Included in mapping are areas of Madalin and Fonda soils having more clay in the subsoil than in the Cheektowaga soils. Inclusions of Aeric Epiaquepts occur on slightly higher positions. Small areas of Birdsall soils are included having substrata with less clay than in Cheektowaga soils. Also included are Scarboro soils having a thin organic mantle over sand.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
    Cheektowaga: yes
Hydrologic group:
    Cheektowaga: D

Soil Properties and Qualities

Cheektowaga
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to an abrupt textural change
Depth to seasonal high water table: 0 to 6 inches
    Water table kind: perched
    Ponding: frequent
Flooding: none
Available water capacity: low
Potential frost action: high
Shrink-swell potential: moderate
Landform: lake plains
Parent material: sandy over clayey glaciolacustrine deposits
Reaction (pH):
    0 to 12 inches: moderately acid to neutral (5.6 to 7.3)
    12 to 15 inches: moderately acid to neutral (5.6 to 7.3)
    15 to 21 inches: moderately acid to moderately alkaline (5.6 to 8.4)
    21 to 38 inches: neutral to moderately alkaline (6.6 to 8.4)
    38 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
    0 to 12 inches: rapid (6 to 20 inches/hour)
    12 to 15 inches: rapid (6 to 20 inches/hour)
    15 to 21 inches: rapid (6 to 20 inches/hour)
    21 to 38 inches: very slow or slow (0.001 to 0.2 inches/hour)
    38 to 72 inches: very slow or slow (0.001 to 0.2 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
These soils are not suited to growing cultivated crops because of ponding and a seasonal high water table.

Pasture

These soils are poorly suited for pasture because of ponding and a seasonal high water table.

Woodland

- Haul roads are limited by the seasonal high water table in these soils. Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads due to wetness. Consult the Water Features table for months of seasonal saturation.
- These soils are subject to ponding and should be avoided when locating log landings.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to ponding. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

Other sites should be considered for this use. Because of ponding and the seasonal high water table, these soils are not suitable for dwellings with basements.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of ponding and the seasonal high water table, these soils are not suitable as a site for septic tank absorption fields.

Local Roads and Streets

These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding and high water table adversely affect the ease of excavation and grading and limit the bearing capacity of the soil. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations. Because excessive shrinking and swelling can cause roadways to buckle and pavement to crack, these soils are not recommended for use as a base material. Adding coarse-textured subgrade material over the clayey substrata can help overcome this limitation.

197A—Fredon loam, 0 to 3 percent slopes

Setting

This unit is on nearly level glacial outwash plains and terraces in the Mohawk Valley.

Map Unit Composition

Major Components

Fredon, somewhat poorly drained: 75 percent

Inclusions

Fredon, poorly drained phase: 10 percent

Scarboro: 5 percent
Stafford: 5 percent
Unnamed: 5 percent

Included in mapping are areas of poorly drained Fredon soils having redox features in the topsoil. Small areas of very poorly drained Scarboro soils are in depressions and along drainageways. Also included are Stafford soils where the loamy subsoil is thin or absent.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
  Fredon, somewhat poorly drained: no
Hydrologic group:
  Fredon, somewhat poorly drained: B/D

Soil Properties and Qualities

Fredon
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 10 to 18 inches
  Water table kind: apparent
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Landform: outwash plains, terraces
Parent material: loamy over sandy and gravelly glaciofluvial deposits
Reaction (pH):
  0 to 9 inches: strongly acid to neutral (5.1 to 7.3)
  9 to 18 inches: strongly acid to neutral (5.1 to 7.3)
  18 to 26 inches: strongly acid to neutral (5.1 to 7.3)
  26 to 65 inches: moderately acid to moderately alkaline (5.6 to 8.4)
Permeability:
  0 to 9 inches: moderate (0.6 to 2 inches/hour)
  9 to 18 inches: moderate (0.6 to 2 inches/hour)
  18 to 26 inches: moderate (0.6 to 2 inches/hour)
  26 to 65 inches: moderate to very rapid (1 to 100 inches/hour)

Use and Management

Cropland
This soil is considered prime farmland only where drained. Systematic subsurface drainage may extend the period of planting and harvesting of crops. The root system of some deep-rooted crops may be damaged by frost action.

Pasture
These soils are well suited to pasture. Excess water should be removed or diverted away from this unit. Grass or legume species that are adapted to wet soil conditions should be planted. Planting adapted species can also minimize the root damage caused by frost action.

Woodland
- These soils are limited for haul roads because of the seasonal high water table. Avoiding construction during periods of seasonal wetness, adequate design of

drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table in areas of these soils greatly limits the absorption and proper treatment of effluent from conventional septic systems. Excessive rates of water movement or seepage through parts of the soil substrata may also limit the proper treatment of effluent from septic systems in some areas. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

Correlation Note: Map unit 197A has strata of finer material below 50 inches than is allowed in the range of the Fredon series. This should not significantly affect use and management on a local basis for most purposes.

201B—Alton gravelly loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping glacial outwash terraces and alluvial fans in the Mohawk Valley.

Map Unit Composition

Major Components

Alton: 80 percent

Inclusions
Ninigret: 5 percent
Windsor: 5 percent
Agawam: 3 percent
Fredon: 3 percent
Merrimac: 2 percent
Unnamed: 2 percent

Included in mapping are areas of moderately well drained Ninigret soils and somewhat poorly drained Fredon soils on slightly concave positions or along drainageways. Inclusions of sandy Windsor soils occur where rock fragments are almost absent. Small areas of Agawam and Merrimac soils are included where the loamy subsoil has fewer rock fragments than Alton soils.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2s
Hydric soil rating:
Alton: no
Hydrologic group:
Alton: A

Soil Properties and Qualities

Alton
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: alluvial fans, kames, terraces
Parent material: loamy and gravelly outwash
Reaction (pH):
0 to 5 inches: very strongly acid or strongly acid (4.5 to 5.5)
5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
8 to 15 inches: strongly acid to neutral (5.1 to 7.3)
15 to 19 inches: strongly acid to neutral (5.1 to 7.3)
19 to 25 inches: strongly acid to neutral (5.1 to 7.3)
25 to 42 inches: neutral or slightly alkaline (6.6 to 7.8)
42 to 46 inches: neutral to moderately alkaline (6.6 to 8.4)
46 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)
Permeability:
0 to 5 inches: moderately rapid (2 to 6 inches/hour)
5 to 8 inches: moderately rapid (2 to 6 inches/hour)
8 to 15 inches: moderately rapid (2 to 6 inches/hour)
15 to 19 inches: moderately rapid (2 to 6 inches/hour)
19 to 25 inches: moderately rapid (2 to 6 inches/hour)
25 to 42 inches: rapid or very rapid (6 to 100 inches/hour)
42 to 46 inches: rapid or very rapid (6 to 100 inches/hour)
46 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland

These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture

These soils are well suited to pasture (fig. 19). Erosion control may be needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

There are no major soil limitations for this use.

Development

Erosion and sediment control may be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

There are no major soil limitations for this use.

Figure 19.—Map units 201B and 201C, Alton, gravelly loam, are represented in the pasture behind this Hereford. Alton soils provide a local source of sand and gravel, and have been partially mined at the upper end of the field.

Photo taken by Harold Wheeler, Conservation Education Coordinator, Fulton County Soil and Water Conservation District.

Septic Tank Absorption Fields

Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of effluent from conventional septic systems. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

201C—Alton gravelly loam, 8 to 15 percent slopes

Setting

This unit is on strongly sloping glacial outwash terraces, alluvial fans and remnant beach ridges in the Mohawk Valley.

Map Unit Composition

Major Components
Alton: 80 percent

Inclusions
Merrimac: 5 percent
Windsor: 5 percent
Agawam: 3 percent
Ninigret: 3 percent
Fredon: 1 percent
Unnamed: 3 percent

Included in mapping are small areas of Merrimac and Agawam soils where the loamy subsoil has fewer rock fragments than Alton soils. Inclusions of sandy Windsor soils occur where rock fragments are almost absent. There are small included areas of moderately well drained Ninigret soils and somewhat poorly drained Fredon soils on slightly concave positions or along drainageways.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
    Alton: no
Hydrologic group:
    Alton: A

Soil Properties and Qualities

Alton
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate

Potential frost action: moderate
Shrink-swell potential: low
Landform: alluvial fans, terraces, kames
Parent material: loamy and gravelly outwash
Reaction (pH):
- 0 to 5 inches: very strongly acid or strongly acid (4.5 to 5.5)
- 5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 8 to 15 inches: strongly acid to neutral (5.1 to 7.3)
- 15 to 19 inches: strongly acid to neutral (5.1 to 7.3)
- 19 to 25 inches: strongly acid to neutral (5.1 to 7.3)
- 25 to 42 inches: neutral or slightly alkaline (6.6 to 7.8)
- 42 to 46 inches: neutral to moderately alkaline (6.6 to 8.4)
- 46 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)

Permeability:
- 0 to 5 inches: moderately rapid (2 to 6 inches/hour)
- 5 to 8 inches: moderately rapid (2 to 6 inches/hour)
- 8 to 15 inches: moderately rapid (2 to 6 inches/hour)
- 15 to 19 inches: moderately rapid (2 to 6 inches/hour)
- 19 to 25 inches: moderately rapid (2 to 6 inches/hour)
- 25 to 42 inches: rapid or very rapid (6 to 100 inches/hour)
- 42 to 46 inches: rapid or very rapid (6 to 100 inches/hour)
- 46 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland

These soils are limited for growing cultivated crops by strongly sloping areas causing a risk of soil erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture

These soils are well suited to pasture. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

There are no major soil limitations for this use.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

These strongly sloping areas influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of effluent from conventional septic systems. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity. Because of strongly sloping areas, special design and installation techniques may be needed for distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

These strongly sloping soils impede trafficability of heavy machinery and increases the cost of building roads and streets. Placing roads on the contour can help overcome this limitation. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

201D—Alton gravelly loam, 15 to 25 percent slopes

Setting

This unit is on moderately steep glacial outwash, kames and remnant beach ridges in the Mohawk Valley.

Map Unit Composition

Major Components
Alton: 80 percent

Inclusions
Windsor: 8 percent
Agawam: 4 percent
Merrimac: 3 percent
Ninigret: 2 percent
Unnamed: 3 percent

Included in mapping are small areas of sandy Windsor soils having no rock fragments. Inclusions of Merrimac and Agawam soils occur where the loamy subsoil has fewer rock fragments than Alton soils. There are small included areas of moderately well drained Ninigret soils along drainageways.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
  Alton: no
Hydrologic group:
  Alton: A

Soil Properties and Qualities

Alton
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: kames, alluvial fans, terraces
Parent material: loamy and gravelly outwash
Reaction (pH):
  0 to 5 inches: very strongly acid or strongly acid (4.5 to 5.5)
  5 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
  8 to 15 inches: strongly acid to neutral (5.1 to 7.3)

15 to 19 inches: strongly acid to neutral (5.1 to 7.3)
19 to 25 inches: strongly acid to neutral (5.1 to 7.3)
25 to 42 inches: neutral or slightly alkaline (6.6 to 7.8)
42 to 46 inches: neutral to moderately alkaline (6.6 to 8.4)
46 to 72 inches: neutral to moderately alkaline (6.6 to 8.4)

Permeability:
0 to 5 inches: moderately rapid (2 to 6 inches/hour)
5 to 8 inches: moderately rapid (2 to 6 inches/hour)
8 to 15 inches: moderately rapid (2 to 6 inches/hour)
15 to 19 inches: moderately rapid (2 to 6 inches/hour)
19 to 25 inches: moderately rapid (2 to 6 inches/hour)
25 to 42 inches: rapid or very rapid (6 to 100 inches/hour)
42 to 46 inches: rapid or very rapid (6 to 100 inches/hour)
46 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland

These moderately steep soils are very limited to growing cultivated crops because of safety considerations in use of farm equipment and because of an erosion hazard. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture

These moderately steep soils are subject to erosion on heavily grazed areas. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

- Haul roads are limited on these moderately steep soils. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep slope adversely influences the safe use of machinery and can make excavation difficult. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

These moderately steep soils require special design and installation techniques for effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Excessive rates of water movement or seepage through the soil

substrata may limit the proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

210A—Merrimac fine sandy loam, 0 to 3 percent slopes

Setting

This unit is on nearly level glacial outwash plains and terraces in the Mohawk Valley.

Map Unit Composition

Major Components
Merrimac: 75 percent

Inclusions
Charlton: 6 percent
Agawam: 5 percent
Alton: 5 percent
Windsor: 5 percent
Ninigret: 4 percent

Included in mapping are areas of loamy Charlton soils formed in glacial till lacking stratification in the substratum. Inclusions of Agawam soils have more contrast in texture between the subsoil and substratum. Small areas of Alton soils occur where the gravel content is higher. Inclusions of sandy Windsor soils lacking a loamy subsoil occur in some map units. Also, small areas of moderately well drained Ninigret soils occur in slightly concave places and along drainageways.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2s
Hydric soil rating:
    Merrimac: no
Hydrologic group:
    Merrimac: A

Soil Properties and Qualities

Merrimac
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: low
Shrink-swell potential: low
Landform: kames, outwash plains, terraces
Parent material: sandy and gravelly outwash

Reaction (pH):
- 0 to 2 inches: extremely acid to moderately acid (3.6 to 6.0)
- 2 to 10 inches: extremely acid to moderately acid (3.6 to 6.0)
- 10 to 20 inches: extremely acid to moderately acid (3.6 to 6.0)
- 20 to 24 inches: extremely acid to moderately acid (3.6 to 6.0)
- 24 to 30 inches: extremely acid to moderately acid (3.6 to 6.0)
- 30 to 36 inches: extremely acid to moderately acid (3.6 to 6.0)
- 36 to 72 inches: extremely acid to moderately acid (3.6 to 6.0)

Permeability:
- 0 to 2 inches: moderately rapid (2 to 6 inches/hour)
- 2 to 10 inches: moderately rapid (2 to 6 inches/hour)
- 10 to 20 inches: moderately rapid (2 to 6 inches/hour)
- 20 to 24 inches: moderately rapid (2 to 6 inches/hour)
- 24 to 30 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 30 to 36 inches: rapid or very rapid (6 to 100 inches/hour)
- 36 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland

These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland.

Pasture

These soils are well suited to pasture.

Woodland

There are no major soil limitations for this use.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

There are no major soil limitations for this use.

Septic Tank Absorption Fields

Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

There are no major soil limitations for this use.

Correlation Note: Map units 210A, 210B, 210C, and 210D have less gravel and thin lenses of fine sandy loam in the substratum that are not typical for the Merrimac series. This should not significantly affect use and management on a local basis for most purposes.

210B—Merrimac fine sandy loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping glacial outwash plains and terraces in the Mohawk Valley (fig. 20).

Figure 20.—Nearly level inclusions within map unit 210B, Merrimac, fine sandy loam are ideal recreation sites for camp areas, picnic areas, and playgrounds like this one. Merrimac soils also are fair sources of topsoil and roadfill.

Map Unit Composition

Major Components
Merrimac: 75 percent

Inclusions
Charlton: 7 percent
Agawam: 5 percent
Alton: 5 percent
Windsor: 5 percent
Ninigret: 3 percent

Included in mapping are areas of loamy Charlton soils formed in glacial till lacking stratification in the substratum. Inclusions of Agawam soils have more contrast in texture between the subsoil and substratum. Small areas of Alton soils occur where the gravel content is higher. Inclusions of sandy Windsor soils lacking a loamy subsoil occur in some map units. Also, small areas of moderately well drained Ninigret soils occur in slightly concave places and along drainageways.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2s
Hydric soil rating:
    Merrimac: no
Hydrologic group:
    Merrimac: A

Soil Properties and Qualities

Merrimac
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: low
Shrink-swell potential: low
Landform: kames, outwash plains, terraces
Parent material: sandy and gravelly outwash
Reaction (pH):
- 0 to 2 inches: extremely acid to moderately acid (3.6 to 6.0)
- 2 to 10 inches: extremely acid to moderately acid (3.6 to 6.0)
- 10 to 20 inches: extremely acid to moderately acid (3.6 to 6.0)
- 20 to 24 inches: extremely acid to moderately acid (3.6 to 6.0)
- 24 to 30 inches: extremely acid to moderately acid (3.6 to 6.0)
- 30 to 36 inches: extremely acid to moderately acid (3.6 to 6.0)
- 36 to 72 inches: extremely acid to moderately acid (3.6 to 6.0)

Permeability:
- 0 to 2 inches: moderately rapid (2 to 6 inches/hour)
- 2 to 10 inches: moderately rapid (2 to 6 inches/hour)
- 10 to 20 inches: moderately rapid (2 to 6 inches/hour)
- 20 to 24 inches: moderately rapid (2 to 6 inches/hour)
- 24 to 30 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 30 to 36 inches: rapid or very rapid (6 to 100 inches/hour)
- 36 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland
These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture
These soils are well suited to pasture. Erosion control may be needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland
There are no major soil limitations for this use.

Development
Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
There are no major soil limitations for this use.

Septic Tank Absorption Fields
Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of effluent from conventional septic systems. Onsite

investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

There are no major soil limitations for this use.

210C—Merrimac fine sandy loam, 8 to 15 percent slopes

Setting

This unit is on strongly sloping glacial outwash plains, terraces and kames in the Mohawk Valley.

Map Unit Composition

Major Components

Merrimac: 75 percent

Inclusions

Charlton: 7 percent
Windsor: 6 percent
Agawam: 5 percent
Alton: 5 percent
Hinckley: 1 percent
Ninigret: 1 percent

Included in mapping are areas of loamy Charlton soils formed in glacial till lacking stratification in the substratum. Windsor soils are included where the sandy soil is without a loamy mantle and rock fragments. Inclusions of Agawam soils have more contrast in texture between the subsoil and substratum. Small areas of Alton and Hinckley soils occur where the gravel content is higher. Also, small areas of moderately well drained Ninigret soils occur in slightly concave places and along drainageways.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
    Merrimac: no
Hydrologic group:
    Merrimac: A

Soil Properties and Qualities

Merrimac

Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: low
Shrink-swell potential: low
Landform: kames, outwash plains, terraces
Parent material: sandy and gravelly outwash

Reaction (pH):
- 0 to 2 inches: extremely acid to moderately acid (3.6 to 6.0)
- 2 to 10 inches: extremely acid to moderately acid (3.6 to 6.0)
- 10 to 20 inches: extremely acid to moderately acid (3.6 to 6.0)
- 20 to 24 inches: extremely acid to moderately acid (3.6 to 6.0)
- 24 to 30 inches: extremely acid to moderately acid (3.6 to 6.0)
- 30 to 36 inches: extremely acid to moderately acid (3.6 to 6.0)
- 36 to 72 inches: extremely acid to moderately acid (3.6 to 6.0)

Permeability:
- 0 to 2 inches: moderately rapid (2 to 6 inches/hour)
- 2 to 10 inches: moderately rapid (2 to 6 inches/hour)
- 10 to 20 inches: moderately rapid (2 to 6 inches/hour)
- 20 to 24 inches: moderately rapid (2 to 6 inches/hour)
- 24 to 30 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 30 to 36 inches: rapid or very rapid (6 to 100 inches/hour)
- 36 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland

These soils are limited for growing cultivated crops by strongly sloping areas causing a risk of soil erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture

These soils are well suited to pasture. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

There are no major soil limitations for this use.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

These strongly sloping areas influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

These strongly sloping soils impede trafficability of heavy machinery and increases the cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

210D—Merrimac fine sandy loam, 15 to 25 percent slopes

Setting

This unit is on moderately steep side slopes of glacial outwash plains and kames in the Mohawk Valley.

Map Unit Composition

Major Components
Merrimac: 75 percent

Inclusions
Windsor: 8 percent
Charlton: 7 percent
Hinckley: 6 percent
Agawam: 3 percent
Ninigret: 1 percent

Included in mapping are areas of sandy Windsor soils which lack a loamy subsoil and rock fragments. The loamy Charlton soils are included in areas lacking stratification in the substratum. Small areas of Hinckley soils occur where the gravel content is higher. Inclusions of Agawam soils have more contrast in texture between the subsoil and substratum. Also, small areas of moderately well drained Ninigret soils occur along drainageways.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
  Merrimac: no
Hydrologic group:
  Merrimac: A

Soil Properties and Qualities

Merrimac
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: low
Shrink-swell potential: low
Landform: kames, outwash plains, terraces
Parent material: sandy and gravelly outwash
Reaction (pH):
  0 to 2 inches: extremely acid to moderately acid (3.6 to 6.0)
  2 to 10 inches: extremely acid to moderately acid (3.6 to 6.0)
  10 to 20 inches: extremely acid to moderately acid (3.6 to 6.0)
  20 to 24 inches: extremely acid to moderately acid (3.6 to 6.0)
  24 to 30 inches: extremely acid to moderately acid (3.6 to 6.0)
  30 to 36 inches: extremely acid to moderately acid (3.6 to 6.0)
  36 to 72 inches: extremely acid to moderately acid (3.6 to 6.0)

Permeability:
- 0 to 2 inches: moderately rapid (2 to 6 inches/hour)
- 2 to 10 inches: moderately rapid (2 to 6 inches/hour)
- 10 to 20 inches: moderately rapid (2 to 6 inches/hour)
- 20 to 24 inches: moderately rapid (2 to 6 inches/hour)
- 24 to 30 inches: moderately rapid or rapid (2 to 20 inches/hour)
- 30 to 36 inches: rapid or very rapid (6 to 100 inches/hour)
- 36 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland

These moderately steep soils are very limited to growing cultivated crops because of safety considerations in use of farm equipment and because of an erosion hazard. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture

These moderately steep soils are subject to erosion on heavily grazed areas. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion.

Woodland

- Haul roads are limited on these moderately steep soils. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep slope adversely influences the safe use of machinery and can make excavation difficult. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

These moderately steep soils require special design and installation techniques for effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Excessive rates of water movement or seepage through the soil substrata may limit the proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

211A—Burnt Vly-Humaquepts-Pleasant Lake complex, 0 to 2 percent slopes

Setting

This nearly level map unit occurs in depressions and along streams in the Adirondack Mountains.

Map Unit Composition

Major Components
Burnt Vly: 35 percent
Humaquepts: 25 percent
Pleasant Lake: 20 percent

Inclusions
Naumburg: 5 percent
Searsport: 5 percent
Adams: 3 percent
Monadnock: 2 percent
Sabattis: 3 percent
Adirondack: 1 percent
Colton: 1 percent

Included in mapping are areas of somewhat poorly drained Naumburg, somewhat excessively drained Adams and excessively drained Colton soils on slightly higher terrace positions. Searsport soils are included in areas with only 8 to 16 inches of organic matter on the surface. Small areas of Monadnock, Adirondack and Sabattis soils are included along the margins of this map unit where loamy glacial till deposits exist.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7w
Hydric soil rating:
Burnt Vly: yes
Humaquepts: yes
Pleasant Lake: yes
Hydrologic group:
Burnt Vly: D
Humaquepts: A/D
Pleasant Lake: D

Soil Properties and Qualities

Burnt Vly
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
Water table kind: apparent
Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low

Landform: Adirondack Mountain backswamps, Adirondack Mountain depressions, Adirondack Mountain valleys
Parent material: highly decomposed woody organic material over sandy glaciolacustrine deposits
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
1 to 3 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
3 to 11 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
11 to 26 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
26 to 30 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
30 to 60 inches: extremely acid to slightly acid (3.5 to 6.5)
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 11 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
11 to 26 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
26 to 30 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
30 to 60 inches: rapid (6 to 20 inches/hour)

Humaquepts
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
Water table kind: apparent
Flooding: frequent
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: flood plains
Parent material: recent alluvium
Reaction (pH):
0 to 2 inches: ultra acid to strongly acid (3.0 to 5.5 in CaCl2)
2 to 9 inches: very strongly acid to neutral (4.5 to 7.3)
9 to 20 inches: very strongly acid to moderately alkaline (4.5 to 8.4)
20 to 23 inches: very strongly acid to moderately alkaline (4.5 to 8.4)
23 to 60 inches: very strongly acid to moderately alkaline (4.5 to 8.4)
Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 20 inches: moderately slow to very rapid (0.2 to 100 inches/hour)
20 to 23 inches: moderately slow to very rapid (0.2 to 100 inches/hour)
23 to 60 inches: moderately slow to very rapid (0.2 to 100 inches/hour)

Pleasant Lake
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
Water table kind: apparent
Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: backswamps, depressions

Parent material: highly decomposed woody organic material
Reaction (pH):
- 0 to 2 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
- 2 to 5 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
- 5 to 44 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
- 44 to 78 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
- 78 to 86 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)

Permeability:
- 0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 5 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 5 to 44 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 44 to 78 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 78 to 86 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

Use and Management

This map unit contains important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Woodland
- Haul roads are limited by the seasonal high water table on these soils. Locating roads on higher, better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads. Consult the Water Features table for months of seasonal saturation.
- This unit has soils with thick organic surfaces and are subject to ponding or flooding
- This unit should be avoided when locating log landings.
- Timber harvesting operations should be limited to winter months when the ground is frozen because of soils with thick organic surfaces and low bearing strength. Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to ponding or flooding. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

This unit is not suitable for this use because of ponding, flooding and high content of organic matter. The organic matter content limits soil strength and severely affects the capacity of these soils to bear a load without movement.

Septic Tank Absorption Fields

This unit is not suitable for this use because of ponding, flooding and high content of organic matter.

Local Roads and Streets

These soils are very limited for local roads and streets due to the potential for ponding and flooding. Seasonal ponding adversely affects the ease of excavation and grading and limits the bearing capacity of the soil. Flooding also limits the use of these soils requiring a special design of roads and bridges. Subsidence of the organic material reduces the load-bearing capacity of these soils. Local roads and streets may also be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce this limitation.

212A—Hinckley gravelly loamy sand, 0 to 3 percent slopes

Setting

This unit is on nearly level glacial outwash plains in the Mohawk Valley.

Map Unit Composition

Major Components
Hinckley: 80 percent

Inclusions
Windsor: 7 percent
Agawam: 5 percent
Alton: 4 percent
Merrimac: 2 percent
Ninigret: 2 percent

Included in mapping are areas of Windsor soils which have few or no rock fragments in the soil. Small areas of Agawam and Merrimac soils are included in areas with a loamy mantle over the sandy substratum. In some areas, Alton soils are included where there are carbonates in the substratum. Also included are Ninigret soils in slightly concave positions and along drainageways.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3s
Hydric soil rating:
  Hinckley: no
Hydrologic group:
  Hinckley: A

Soil Properties and Qualities

Hinckley
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Landform: outwash plains, terraces
Parent material: sandy and gravelly outwash
Reaction (pH):
  0 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
  6 to 16 inches: extremely acid to moderately acid (3.5 to 6.0)
  16 to 20 inches: extremely acid to moderately acid (3.5 to 6.0)
  20 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
  0 to 6 inches: rapid (6 to 20 inches/hour)
  6 to 16 inches: rapid (6 to 20 inches/hour)
  16 to 20 inches: rapid (6 to 20 inches/hour)
  20 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland

These soils are limited for growing cultivated crops by the very low available water capacity. Plants may suffer from moisture stress during drier summer months. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture

These soils are well suited to pasture. Plants may suffer moisture stress during the drier summer months because of very low available water capacity. Avoiding overgrazing allows for re-growth of forage.

Woodland

Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

There are no major soil limitations for this use.

Septic Tank Absorption Fields

The excessive rate of fluid movement through these soils limits the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute ground water in the area near the absorption field. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

There are no major soil limitations for this use.

212B—Hinckley gravelly loamy sand, 3 to 8 percent slopes

Setting

This unit is on gently sloping glacial outwash plains in the Mohawk Valley.

Map Unit Composition

Major Components

Hinckley: 80 percent

Inclusions

Windsor: 7 percent
Agawam: 5 percent
Alton: 4 percent
Merrimac: 2 percent
Ninigret: 2 percent

Included in mapping are areas of Windsor soils which have few or no rock fragments in the soil. Small areas of Agawam and Merrimac soils are included in

areas with a loamy mantle over the sandy substratum. In some areas, Alton soils are included where there are carbonates in the substratum. Also included are Ninigret soils in slightly concave positions and along drainageways.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3s
Hydric soil rating:
  Hinckley: no
Hydrologic group:
  Hinckley: A

Soil Properties and Qualities

Hinckley
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Landform: outwash plains, terraces
Parent material: sandy and gravelly outwash
Reaction (pH):
  0 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
  6 to 16 inches: extremely acid to moderately acid (3.5 to 6.0)
  16 to 20 inches: extremely acid to moderately acid (3.5 to 6.0)
  20 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
  0 to 6 inches: rapid (6 to 20 inches/hour)
  6 to 16 inches: rapid (6 to 20 inches/hour)
  16 to 20 inches: rapid (6 to 20 inches/hour)
  20 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland

These soils are limited for growing cultivated crops by the very low available water capacity and risk of soil erosion. Plants may suffer from moisture stress during drier summer months. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion.

Pasture

These soils are well suited to pasture. Plants may suffer moisture stress during the drier summer months because of very low available water capacity. Avoiding overgrazing allows for re-growth of forage and can reduce the hazard of erosion. Erosion control may be needed when pastures are renovated.

Woodland

Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control may be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

There are no major soil limitations for this use.

Septic Tank Absorption Fields

The excessive rate of fluid movement through these soils limits the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute ground water in the area near the absorption field. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

There are no major soil limitations for this use.

212C—Hinckley gravelly loamy sand, 8 to 15 percent slopes

Setting

This unit is on strongly sloping glacial outwash plains and terraces in the Mohawk Valley.

Map Unit Composition

Major Components

Hinckley: 80 percent

Inclusions

Windsor: 9 percent
Agawam: 3 percent
Alton: 3 percent
Ninigret: 1 percent
Unnamed: 4 percent

Included in mapping are areas of Windsor soils which have few or no rock fragments in the soil. Small areas of Agawam soils are included in areas with a loamy mantle over the sandy substratum. In some areas, Alton soils are included where there are carbonates in the substratum. Also included are Ninigret soils in slightly concave positions and along drainageways.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4s
Hydric soil rating:
    Hinckley: no
Hydrologic group:
    Hinckley: A

Soil Properties and Qualities

Hinckley

Drainage class: excessively drained

Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Landform: outwash plains, terraces
Parent material: sandy and gravelly outwash
Reaction (pH):
 0 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
 6 to 16 inches: extremely acid to moderately acid (3.5 to 6.0)
 16 to 20 inches: extremely acid to moderately acid (3.5 to 6.0)
 20 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
 0 to 6 inches: rapid (6 to 20 inches/hour)
 6 to 16 inches: rapid (6 to 20 inches/hour)
 16 to 20 inches: rapid (6 to 20 inches/hour)
 20 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland

These strongly sloping soils are limited for growing cultivated crops by potential erosion hazard and droughtiness. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Plants may suffer from moisture stress during drier summer months because of very low available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture.

Pasture

These soils are limited for pasture because of droughtiness and potential erosion. Plants may suffer moisture stress during the drier summer months because of very low available water capacity. Erosion control is needed when pastures are renovated. Avoiding overgrazing can allow for re-growth of forage and reduce the hazard of erosion.

Woodland

Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

These strongly sloping areas influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The excessive rate of fluid movement through these soils limits the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute ground water in the area near the absorption field. Because of strongly sloping areas,

special design and installation techniques may be needed for distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

These strongly sloping soils impede trafficability of heavy machinery and increase the cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

232A—Teel silt loam, 0 to 3 percent slopes

Setting

This nearly level unit is on flood plains along large streams within the Mohawk Valley.

Map Unit Composition

Major Components
Teel: 75 percent

Inclusions
Endoaquolls, frequently flooded: 8 percent
Hapludolls, frequently flooded: 7 percent
Merrimac: 3 percent
Scio: 3 percent
Unnamed: 4 percent

Included in mapping are areas of Endoaquolls and Hapludolls formed in recent alluvial deposits that are frequently flooded. The sandy Merrimac soils and silty Scio soils are included where flooding is rare or unlikely.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2w
Hydric soil rating:
  Teel: no
Hydrologic group:
  Teel: B/D

Soil Properties and Qualities

Teel
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 36 inches
  Water table kind: apparent
Flooding: occasional
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Landform: flood plains
Parent material: silty alluvium
Reaction (pH):
  0 to 10 inches: strongly acid to neutral (5.1 to 7.3)

10 to 16 inches: strongly acid to neutral (5.1 to 7.3)
16 to 32 inches: strongly acid to neutral (5.1 to 7.3)
32 to 40 inches: moderately acid to slightly alkaline (5.6 to 7.8)
40 to 45 inches: moderately acid to slightly alkaline (5.6 to 7.8)
45 to 56 inches: moderately acid to slightly alkaline (5.6 to 7.8)
56 to 62 inches: moderately acid to slightly alkaline (5.6 to 7.8)

Permeability:
0 to 10 inches: moderate (0.6 to 2 inches/hour)
10 to 16 inches: moderate (0.6 to 2 inches/hour)
16 to 32 inches: moderate (0.6 to 2 inches/hour)
32 to 40 inches: moderate (0.6 to 2 inches/hour)
40 to 45 inches: moderate to rapid (0.6 to 20 inches/hour)
45 to 56 inches: moderate to rapid (0.6 to 20 inches/hour)
56 to 62 inches: moderate to rapid (0.6 to 20 inches/hour)

Use and Management

Cropland

These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Subsurface drainage in low areas may extend the period of planting and harvesting of crops. Flooding may delay planting or damage crops in some years. Controlling machine traffic during wet periods can minimize soil compaction.

Pasture

These soils are well suited to pasture. Sediment left on forage plants after a flood event may reduce palatability and forage intake by grazing animals. Restricting grazing during wet periods can minimize compaction.

Woodland

- Haul roads are limited by occasional flooding and the seasonal high water table in these soils. Conducting road construction and harvesting operations during months of low stream flow and using riparian buffers will help overcome construction limitations of haul roads due to occasional flooding. Avoiding construction during periods of seasonal wetness and adequate design of drainage features such as water bars and ditches will help overcome construction limitations due to seasonal wetness. Consult the Water Features table for months of seasonal wetness and flooding.
- Construction of log landings on flood-prone soils should be avoided. Planning harvest operations for months when flooding is least likely to occur will help overcome concerns caused by occasional flooding. Riparian setbacks should be at least 200 feet. Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

Potential for flooding and the seasonal high water table severely limit the capacity of these soils to bear a load without movement and may result in costly physical damage to buildings. Higher areas above the flood plain should be considered for this use.

Septic Tank Absorption Fields

Occasional flooding and the seasonal high water table greatly limit the absorption and proper treatment of effluent from conventional septic systems. Rapidly moving floodwaters may damage some components of septic systems. Higher areas above the flood plain should be considered for this use. The moderate to slow rate of fluid movement through these soils may also impede the absorption and proper treatment of effluent from septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Occasional flooding limits the use of these soils for local roads and streets. Special design of roads and bridges is necessary. The seasonal high water table may impede excavation and grading and reduce the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce these limitations.

244A—Darien silt loam, 0 to 3 percent slopes

Setting

This unit is on nearly level till plains and moraines in the Mohawk Valley.

Map Unit Composition

Major Components

Darien: 75 percent

Inclusions

Appleton: 8 percent
Ilion: 5 percent
Manheim: 5 percent
Rhinebeck: 4 percent
Angola: 2 percent
Georgia: 1 percent

Included in mapping are areas of Appleton soils which have less clay in the subsoil. Small areas of poorly drained Ilion soils are included in depressions. Manheim soils are included where soils have dark colors due to a higher content of soft black shale fragments. Inclusions of Rhinebeck soils occur in areas with more than 35 percent clay and less rock fragments in the subsoil. Angola soils are included in small areas that are moderately deep to bedrock. Also included are moderately well drained Georgia soils on slightly higher or more convex positions.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
Darien: no
Hydrologic group:
Darien: C/D

Soil Properties and Qualities

Darien
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 10 to 18 inches
Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: broad areas along drainageways, till plains
Parent material: fine-loamy till
Reaction (pH):
0 to 11 inches: strongly acid to neutral (5.1 to 7.3)
11 to 14 inches: strongly acid to neutral (5.1 to 7.3)
14 to 23 inches: very strongly acid to neutral (4.5 to 7.3)
23 to 32 inches: neutral to moderately alkaline (6.6 to 8.4)
32 to 60 inches: slightly alkaline or moderately alkaline (7.4 to 8.4)
Permeability:
0 to 11 inches: moderately slow (0.2 to 0.6 inches/hour)
11 to 14 inches: moderately slow (0.2 to 0.6 inches/hour)
14 to 23 inches: moderately slow (0.2 to 0.6 inches/hour)
23 to 32 inches: moderately slow (0.2 to 0.6 inches/hour)
32 to 60 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland

This soil qualifies as prime farmland where drained. Systematic subsurface drainage will extend the period of planting and harvesting of crops. The root system of some deep-rooted crops may be damaged by frost action. Controlling machine traffic during wet periods can minimize soil compaction.

Pasture

These soils are well suited to pasture. Excess water should be removed or diverted away from this unit. Grass or legume species that are adapted to wet soil conditions should be planted. Planting adapted species can also minimize the root damage caused by frost action. Restricting grazing during wet periods can minimize compaction.

Woodland

- Haul roads are limited by the seasonal high water table. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.

- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of these soils to bear a load without movement and causes wet basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through these soils greatly limit the absorption and proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce this limitation.

244B—Darien silt loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping till plains and moraines in the Mohawk Valley.

Map Unit Composition

Major Components

Darien: 75 percent

Inclusions

Appleton: 8 percent
Manheim: 5 percent
Ilion: 4 percent
Rhinebeck: 4 percent
Angola: 2 percent
Georgia: 2 percent

Included in mapping are areas of Appleton soils which have less clay in the subsoil. Manheim soils are included where soils have dark colors due to a higher content of soft black shale fragments. Small areas of poorly drained Ilion soils are included in depressions. Inclusions of Rhinebeck soils occur in areas with more than 35 percent clay and less rock fragments in the subsoil. Angola soils are included in small areas that are moderately deep to bedrock. Also included are moderately well drained Georgia soils on slightly higher or more convex positions.

Interpretive Groups

Farmland class: prime farmland if drained
Land capability classification: 3w
Hydric soil rating:
  Darien: no
Hydrologic group:
  Darien: C/D

Soil Properties and Qualities

Darien
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 10 to 18 inches
  Water table kind: apparent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: broad areas along drainageways, broad areas along till plains
Parent material: fine-loamy till
Reaction (pH):
  0 to 11 inches: strongly acid to neutral (5.1 to 7.3)
  11 to 14 inches: strongly acid to neutral (5.1 to 7.3)
  14 to 23 inches: very strongly acid to neutral (4.5 to 7.3)
  23 to 32 inches: neutral to moderately alkaline (6.6 to 8.4)
  32 to 60 inches: slightly alkaline or moderately alkaline (7.4 to 8.4)
Permeability:
  0 to 11 inches: moderately slow (0.2 to 0.6 inches/hour)
  11 to 14 inches: moderately slow (0.2 to 0.6 inches/hour)
  14 to 23 inches: moderately slow (0.2 to 0.6 inches/hour)
  23 to 32 inches: moderately slow (0.2 to 0.6 inches/hour)
  32 to 60 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland
This soil qualifies as prime farmland where drained. Systematic subsurface drainage will extend the period of planting and harvesting of crops. The root system of some deep-rooted crops may be damaged by frost action. Controlling machine traffic during wet periods can minimize soil compaction. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.

Pasture
These soils are well suited to pasture. Excess water should be removed or diverted away from this unit. Grass or legume species that are adapted to wet soil conditions

should be planted. Planting adapted species can also minimize the root damage caused by frost action. Avoiding overgrazing can reduce the hazard of erosion. Restricting grazing during wet periods can also minimize compaction.

Woodland

- Haul roads are limited by the seasonal high water table. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of these soils to bear a load without movement and causes wet basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through these soils greatly limit the absorption and proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce this limitation.

363A—Adams loamy sand, 0 to 3 percent slopes

Setting

This unit is on nearly level, glacial outwash plains, terraces, deltas, and lake plains in the Adirondack Mountains.

Map Unit Composition

Major Components
Adams: 85 percent

Inclusions
Allagash: 5 percent
Colton: 5 percent
Croghan: 3 percent
Becket: 1 percent
Monadnock: 1 percent

Included in mapping are areas of Allagash soils having a loamy subsoil mantle over stratified sands. Inclusions of gravelly Colton soils occur, especially near streams. Small areas of moderately well drained Croghan soils are included where there is a seasonal high water table. Becket and Monadnock soils are included mainly on the fringe of this unit where there is loamy glacial till.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3s
Hydric soil rating:
  Adams: no
Hydrologic group:
  Adams: A

Soil Properties and Qualities

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: deltas, terraces, outwash plains, glacial lake plains
Parent material: sandy glaciofluvial deposits from predominantly crystalline rock and sandstone
Reaction (pH):
  0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in $CaCl_2$)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
  5 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
  9 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
  14 to 17 inches: very strongly acid to moderately acid (4.5 to 6.0)
  17 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
  32 to 58 inches: very strongly acid to slightly acid (4.5 to 6.5)
  58 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  2 to 3 inches: rapid (6 to 20 inches/hour)
  3 to 5 inches: rapid (6 to 20 inches/hour)

5 to 9 inches: rapid (6 to 20 inches/hour)
9 to 14 inches: rapid (6 to 20 inches/hour)
14 to 17 inches: rapid (6 to 20 inches/hour)
17 to 32 inches: very rapid (20 to 100 inches/hour)
32 to 58 inches: very rapid (20 to 100 inches/hour)
58 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Woodland
There are no major soil limitations for this use.

Development
Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements
There are no major soil limitations for this use.

Septic Tank Absorption Fields
The excessive rate of fluid movement through these soils limits the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute ground water in the area near the absorption field. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
There are no major soil limitations for this use.

363B—Adams loamy sand, 3 to 15 percent slopes

Setting

This unit is on gently sloping to strongly sloping outwash plains, deltas, and terraces in the Adirondack Mountains.

Map Unit Composition

Major Components
Adams: 85 percent

Inclusions
Colton: 5 percent
Monadnock: 4 percent
Allagash: 3 percent
Croghan: 2 percent
Becket: 1 percent

Included in mapping are areas of gravelly Colton soils, especially near streams. Monadnock and Becket soils are included mainly on the fringe of this unit where there is loamy glacial till. In places, Allagash soils having a loamy subsoil mantle are included. Small areas of moderately well drained Croghan soils are included where there is a seasonal high water table.

Interpretive Groups

Farmland class: not prime farmland

Land capability classification: 3s
Hydric soil rating:
  Adams: no
Hydrologic group:
  Adams: A

Soil Properties and Qualities

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: deltas, terraces, outwash plains
Parent material: sandy glaciofluvial deposits from predominantly crystalline rock and sandstone
Reaction (pH):
  0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
  5 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
  9 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
  14 to 17 inches: very strongly acid to moderately acid (4.5 to 6.0)
  17 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
  32 to 58 inches: very strongly acid to slightly acid (4.5 to 6.5)
  58 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  2 to 3 inches: rapid (6 to 20 inches/hour)
  3 to 5 inches: rapid (6 to 20 inches/hour)
  5 to 9 inches: rapid (6 to 20 inches/hour)
  9 to 14 inches: rapid (6 to 20 inches/hour)
  14 to 17 inches: rapid (6 to 20 inches/hour)
  17 to 32 inches: very rapid (20 to 100 inches/hour)
  32 to 58 inches: very rapid (20 to 100 inches/hour)
  58 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Woodland
There are no major soil limitations for this use.

Development
Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
There are no major soil limitations for this use. However, the strongly sloping areas of this unit affect the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The excessive rate of fluid movement through these soils limits the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute ground water in the area near the absorption field. Because of strongly sloping areas within this unit, special design and installation techniques may be needed for distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

There are no major soil limitations for this use. The strongly sloping areas of this unit impede trafficability of heavy machinery and increase the cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

363D—Adams loamy sand, 15 to 35 percent slopes

Setting

This unit is on moderately steep and steep outwash deltas, moraines, terraces, and eskers in the Adirondack Mountains.

Map Unit Composition

Major Components
Adams: 80 percent

Inclusions
Colton: 8 percent
Monadnock: 6 percent
Becket: 3 percent
Allagash: 2 percent
Croghan: 1 percent

Included in mapping are areas of gravelly Colton soils, especially near streams. Monadnock and Becket soils are included mainly on the fringe of this unit where there is loamy glacial till. In places, Allagash soils having a loamy subsoil mantle are included. Small areas of moderately well drained Croghan soils are included where there is a seasonal high water table.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Adams: no
Hydrologic group:
    Adams: A

Soil Properties and Qualities

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low

Shrink-swell potential: low
Landform: deltas, kames, terraces, moraines, eskers
Parent material: sandy glaciofluvial deposits from predominantly crystalline rock and sandstone
Reaction (pH):
0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
5 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
9 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
14 to 17 inches: very strongly acid to moderately acid (4.5 to 6.0)
17 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
32 to 58 inches: very strongly acid to slightly acid (4.5 to 6.5)
58 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 3 inches: rapid (6 to 20 inches/hour)
3 to 5 inches: rapid (6 to 20 inches/hour)
5 to 9 inches: rapid (6 to 20 inches/hour)
9 to 14 inches: rapid (6 to 20 inches/hour)
14 to 17 inches: rapid (6 to 20 inches/hour)
17 to 32 inches: very rapid (20 to 100 inches/hour)
32 to 58 inches: very rapid (20 to 100 inches/hour)
58 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Woodland

- Haul roads are limited by moderately steep and steep slopes on these soils. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations due to steep slopes. Applying gravel base material during construction of haul roads will help overcome limitations due to sandy surface layers.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The moderately steep and steep slope adversely affects the use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. This unit is on moderately steep and steep slopes which will require special design and installation techniques for effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. The excessive rate of fluid movement through these soils limits the proper

treatment of effluent from conventional septic systems. Poorly treated effluent may pollute ground water in the area near the absorption field. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary. Routing roads around this unit, where possible, will help to reduce costs.

363F—Adams loamy sand, 35 to 60 percent slopes

Setting

This unit is on very steep outwash deltas, moraines, kames and eskers in the Adirondack Mountains.

Map Unit Composition

Major Components

Adams: 75 percent

Inclusions

Colton: 9 percent
Monadnock: 9 percent
Becket: 5 percent
Allagash: 1 percent
Tunbridge: 1 percent

Included in mapping are areas of gravelly Colton soils, especially near streams. Monadnock and Becket soils are included mainly on the fringe of this unit where there is loamy glacial till. In places, Allagash soils having a loamy subsoil mantle are included. Small areas of moderately deep Tunbridge soils occur in areas of bedrock controlled landforms.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
    Adams: no
Hydrologic group:
    Adams: A

Soil Properties and Qualities

Adams

Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low

Landform: deltas, kames, terraces, moraines, eskers
Parent material: sandy glaciofluvial deposits from predominantly crystalline rock and sandstone
Reaction (pH):
- 0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 5 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 9 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 14 to 17 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 17 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 32 to 58 inches: very strongly acid to slightly acid (4.5 to 6.5)
- 58 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
- 0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 3 inches: rapid (6 to 20 inches/hour)
- 3 to 5 inches: rapid (6 to 20 inches/hour)
- 5 to 9 inches: rapid (6 to 20 inches/hour)
- 9 to 14 inches: rapid (6 to 20 inches/hour)
- 14 to 17 inches: rapid (6 to 20 inches/hour)
- 17 to 32 inches: very rapid (20 to 100 inches/hour)
- 32 to 58 inches: very rapid (20 to 100 inches/hour)
- 58 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Woodland

- Haul roads are limited by very steep slopes on these soils. Avoiding construction of haul roads on slopes exceeding 35 percent is recommended. Applying a gravel base material during construction of haul roads will help overcome limitations due to sandy surface layers.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The very steep slope severely limits the safe use of machinery and deters excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use because of very steep slopes. Onsite investigation may reveal lesser sloping inclusions that could be utilized. The excessive rate of fluid movement through these soils limits the proper treatment of effluent from septic systems. Poorly treated effluent may pollute ground water in the area near the absorption field. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The very steep slope of these soils seriously impedes trafficability of heavy machinery and increases cost of building roads and streets. Roads should be routed around this area to save on construction and maintenance costs.

365A—Naumburg-Croghan complex, 0 to 3 percent slopes

Setting

This nearly level unit is on outwash sand plains and terraces in the Adirondack foothills.

Map Unit Composition

Major Components

Naumburg: 45 percent
Croghan: 35 percent

Inclusions

Searsport: 5 percent
Adams: 3 percent
Allagash: 3 percent
Colton: 3 percent
Humaquepts: 2 percent
Unnamed: 4 percent

Included in mapping are areas of very poorly drained Searsport soils having an 8 to 16 inch thick organic soil mantle. On slightly higher positions are inclusions of somewhat excessively drained Adams soils, well drained Allagash soils, and gravelly, excessively drained Colton soils. Small inclusions of Humaquepts occur near streams that frequently flood.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3w
Hydric soil rating:
  Naumburg: no
  Croghan: no
Hydrologic group:
  Naumburg: A/D
  Croghan: A/D

Soil Properties and Qualities

Naumburg

Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 10 to 18 inches
  Water table kind: apparent
Flooding: none
Available water capacity: low to moderate
Potential frost action: moderate
Shrink-swell potential: low

Landform: outwash plains
Parent material: sandy glaciofluvial deposits
Reaction (pH):
 0 to 1 inch: ultra acid to very strongly acid (1.8 to 5.0 in CaCl2)
 1 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
 5 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
 8 to 10 inches: extremely acid to strongly acid (3.5 to 5.5)
 10 to 16 inches: extremely acid to strongly acid (3.5 to 5.5)
 16 to 19 inches: extremely acid to strongly acid (3.5 to 5.5)
 19 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 1 to 5 inches: rapid (6 to 20 inches/hour)
 5 to 8 inches: rapid (6 to 20 inches/hour)
 8 to 10 inches: rapid (6 to 20 inches/hour)
 10 to 16 inches: rapid (6 to 20 inches/hour)
 16 to 19 inches: rapid (6 to 20 inches/hour)
 19 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Croghan
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 36 inches
 Water table kind: apparent
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, outwash plains, terraces
Parent material: sandy glaciofluvial deposits
Reaction (pH):
 0 to 2 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
 3 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
 5 to 11 inches: very strongly acid to moderately acid (4.5 to 6.0)
 11 to 30 inches: very strongly acid to moderately acid (4.5 to 6.0)
 30 to 36 inches: very strongly acid to moderately acid (4.5 to 6.0)
 36 to 60 inches: very strongly acid to moderately acid (4.5 to 6.0)
Permeability:
 0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 2 to 3 inches: moderately rapid or rapid (2 to 20 inches/hour)
 3 to 5 inches: rapid or very rapid (6 to 100 inches/hour)
 5 to 11 inches: rapid or very rapid (6 to 100 inches/hour)
 11 to 30 inches: rapid or very rapid (6 to 100 inches/hour)
 30 to 36 inches: rapid or very rapid (6 to 100 inches/hour)
 36 to 60 inches: very rapid (20 to 100 inches/hour)

Use and Management

Woodland
- Haul roads are limited on these soils by the seasonal high water table. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent

will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

Other sites should be considered for this use. The seasonal high water table greatly limits the absorption and proper treatment of effluent from conventional septic systems. Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of effluent from septic systems. Poorly treated effluent may pollute the ground water. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

368A—Searsport-Wonsqueak-Naumburg complex, 0 to 3 percent slopes

Setting

This unit is on nearly level areas of sandy outwash plains in the foothills of the Adirondack Mountains.

Map Unit Composition

Major Components
Searsport: 35 percent
Wonsqueak: 25 percent
Naumburg: 20 percent

Inclusions
Croghan: 5 percent
Adams: 3 percent
Adirondack: 3 percent
Colton: 3 percent
Sabattis: 3 percent
Tughill: 3 percent

Included with this soil in mapping are moderately well drained Croghan soils, somewhat excessively drained Adams soils, and gravelly, excessively drained Colton soils on slightly higher positions. Inclusions of somewhat poorly drained Adirondack soils, and very poorly drained Sabattis and Tughill soils are along the margins of this unit where loamy glacial till exists.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
- Searsport: yes
- Wonsqueak: yes
- Naumburg: no

Hydrologic group:
- Searsport: A/D
- Wonsqueak: D
- Naumburg: A/D

Soil Properties and Qualities

Searsport
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
- Water table kind: apparent
- Ponding: frequent

Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: intermontane basins, depressions, swamps
Parent material: sandy outwash
Reaction (pH):
- 0 to 1 inch: extremely acid to moderately acid (3.5 to 6.0 in CaCl2)
- 1 to 9 inches: extremely acid to moderately acid (3.5 to 6.0 in CaCl2)
- 9 to 17 inches: very strongly acid to slightly acid (4.5 to 6.5)
- 17 to 55 inches: very strongly acid to slightly acid (4.5 to 6.5)
- 55 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 9 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 9 to 17 inches: rapid or very rapid (6 to 100 inches/hour)
- 17 to 55 inches: rapid or very rapid (6 to 100 inches/hour)
- 55 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Wonsqueak
Drainage class: very poorly drained

Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
  Water table kind: apparent
  Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: swamps, intermontane basins, depressions
Parent material: woody and herbaceous organic material over loamy till
Reaction (pH):
  0 to 9 inches: extremely acid to slightly acid (4.0 to 6.5 in CaCl2)
  9 to 24 inches: extremely acid to slightly acid (4.0 to 6.5 in CaCl2)
  24 to 44 inches: very strongly acid to slightly acid (4.5 to 6.5 in CaCl2)
  44 to 72 inches: strongly acid to neutral (5.1 to 7.3)
Permeability:
  0 to 9 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  9 to 24 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  24 to 44 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  44 to 72 inches: moderately slow or moderate (0.2 to 2 inches/hour)

Naumburg
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 10 to 18 inches
  Water table kind: apparent
Flooding: none
Available water capacity: low to moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: depressions, intermontane basins
Parent material: sandy glaciofluvial deposits
Reaction (pH):
  0 to 1 inch: ultra acid to very strongly acid (1.8 to 5.0 in CaCl2)
  1 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
  5 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
  8 to 10 inches: extremely acid to strongly acid (3.5 to 5.5)
  10 to 16 inches: extremely acid to strongly acid (3.5 to 5.5)
  16 to 19 inches: extremely acid to strongly acid (3.5 to 5.5)
  19 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 5 inches: rapid (6 to 20 inches/hour)
  5 to 8 inches: rapid (6 to 20 inches/hour)
  8 to 10 inches: rapid (6 to 20 inches/hour)
  10 to 16 inches: rapid (6 to 20 inches/hour)
  16 to 19 inches: rapid (6 to 20 inches/hour)
  19 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Woodland

- Haul roads are limited by the seasonal high water table. Locating roads on higher, better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads due to wetness. Consult the Water Features table for months of seasonal saturation.
- This map unit having soils with thick organic surfaces and subject to ponding should be avoided when locating log landings.
- The rutting hazard can be minimized by limiting timber harvesting operations to winter months when the ground is frozen. For areas of Naumburg soils, restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint and using tracked skidders will help reduce the rutting hazard.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to ponding. Consult the Forestland Productivity table
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. Because of the potential for ponding, these soils are very limited as a site for dwellings with basements. The potential for excessive subsidence on parts of this unit severely limits the capacity to support a load without movement and can cause shifting or collapsing foundations and cracking of basement walls and floors.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of ponding and the seasonal high water table, these soils are not suited for conventional septic tank absorption fields. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding adversely affects the ease of excavation and grading and limits the bearing capacity of the soil. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. Subsidence of the organic material also causes a low load-bearing capacity.

375A—Colton-Adams complex, 0 to 3 percent slopes

Setting

This unit is on nearly level outwash plains, terraces, deltas, and glacial lake plains in the Adirondack Mountains.

Map Unit Composition

Major Components
Colton: 45 percent
Adams: 40 percent

Inclusions
Allagash: 5 percent
Monadnock: 5 percent
Croghan: 3 percent
Unnamed: 2 percent

Included in mapping are areas of Allagash soils having a loamy subsoil mantle. Monadnock soils are included where there is a loamy till over non-stratified sand and gravel. Small areas of moderately well drained Croghan soils are included where there is a seasonal high water table.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3s
Hydric soil rating:
  Colton: no
  Adams: no
Hydrologic group:
  Colton: A
  Adams: A

Soil Properties and Qualities

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Landform: outwash plains, kame terraces
Parent material: sandy and gravelly glaciofluvial deposits
Reaction (pH):
  0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
  4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
  13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
  21 to 32 inches: extremely acid to moderately acid (3.5 to 6.0)
  32 to 80 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
  3 to 4 inches: rapid or very rapid (6 to 100 inches/hour)
  4 to 5 inches: rapid or very rapid (6 to 100 inches/hour)
  5 to 13 inches: rapid or very rapid (6 to 100 inches/hour)

13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
21 to 32 inches: rapid or very rapid (6 to 100 inches/hour)
32 to 80 inches: very rapid (20 to 100 inches/hour)

Adams

Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, kame terraces, outwash plains
Parent material: sandy glaciofluvial deposits from predominantly crystalline rock and sandstone
Reaction (pH):
0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
5 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
9 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
14 to 17 inches: very strongly acid to moderately acid (4.5 to 6.0)
17 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
32 to 58 inches: very strongly acid to slightly acid (4.5 to 6.5)
58 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 3 inches: rapid (6 to 20 inches/hour)
3 to 5 inches: rapid (6 to 20 inches/hour)
5 to 9 inches: rapid (6 to 20 inches/hour)
9 to 14 inches: rapid (6 to 20 inches/hour)
14 to 17 inches: rapid (6 to 20 inches/hour)
17 to 32 inches: very rapid (20 to 100 inches/hour)
32 to 58 inches: very rapid (20 to 100 inches/hour)
58 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Woodland

Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

There are no major soil limitations for this use.

Septic Tank Absorption Fields

The excessive rate of fluid movement through these soils limits the proper treatment of effluent from conventional septic systems. The poorly treated effluent may pollute ground water in the area near the absorption field.

Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

There are no major soil limitations for this use.

375C—Colton-Adams complex, 3 to 15 percent slopes

Setting

This unit is on gently sloping to strongly sloping outwash deltas, moraines, terraces, and eskers in the Adirondack Mountains.

Map Unit Composition

Major Components
Colton: 45 percent
Adams: 40 percent

Inclusions
Monadnock: 6 percent
Allagash: 5 percent
Croghan: 4 percent

Included in mapping are areas of Monadnock soils where there is a loamy till deposit over non-stratified sand and gravel. Allagash soils are included in areas having a loamy subsoil mantle. Small areas of moderately well drained Croghan soils are included where there is a seasonal high water table.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4s
Hydric soil rating:
- Colton: no
- Adams: no

Hydrologic group:
- Colton: A
- Adams: A

Soil Properties and Qualities

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Landform: outwash plains, kame terraces
Parent material: sandy and gravelly glaciofluvial deposits
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)

4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
21 to 32 inches: extremely acid to moderately acid (3.5 to 6.0)
32 to 80 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
3 to 4 inches: rapid or very rapid (6 to 100 inches/hour)
4 to 5 inches: rapid or very rapid (6 to 100 inches/hour)
5 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
21 to 32 inches: rapid or very rapid (6 to 100 inches/hour)
32 to 80 inches: very rapid (20 to 100 inches/hour)

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, kame terraces, outwash plains
Parent material: sandy glaciofluvial deposits from predominantly crystalline rock and sandstone
Reaction (pH):
0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
5 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
9 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
14 to 17 inches: very strongly acid to moderately acid (4.5 to 6.0)
17 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
32 to 58 inches: very strongly acid to slightly acid (4.5 to 6.5)
58 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 3 inches: rapid (6 to 20 inches/hour)
3 to 5 inches: rapid (6 to 20 inches/hour)
5 to 9 inches: rapid (6 to 20 inches/hour)
9 to 14 inches: rapid (6 to 20 inches/hour)
14 to 17 inches: rapid (6 to 20 inches/hour)
17 to 32 inches: very rapid (20 to 100 inches/hour)
32 to 58 inches: very rapid (20 to 100 inches/hour)
58 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Woodland

Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The strongly sloping areas of this unit affects the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. The excessive rate of fluid movement through these soils limits the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute ground water in the area near the absorption field. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Strongly sloping areas of this unit impede trafficability of heavy machinery and increases the cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

375D—Colton-Adams complex, 15 to 35 percent slopes

Setting

This unit is on moderately steep to steep outwash deposits in the form of kames, moraines, terraces, and eskers in the Adirondack Mountains.

Map Unit Composition

Major Components
Colton: 45 percent
Adams: 35 percent

Inclusions
Monadnock: 8 percent
Allagash: 3 percent
Croghan: 2 percent
Unnamed: 7 percent

Included in mapping are areas of Monadnock soils where there is a loamy till deposit overlying non-stratified sand and gravel. Allagash soils are included in areas having a loamy subsoil mantle. Small areas of moderately well drained Croghan soils are included in low areas where there is a seasonal high water table.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Colton: no
  Adams: no

Hydrologic group:
  Colton: A
  Adams: A

Soil Properties and Qualities

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Landform: outwash plains, kame terraces
Parent material: sandy and gravelly glaciofluvial deposits
Reaction (pH):
  0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
  4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
  13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
  21 to 32 inches: extremely acid to moderately acid (3.5 to 6.0)
  32 to 80 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
  3 to 4 inches: rapid or very rapid (6 to 100 inches/hour)
  4 to 5 inches: rapid or very rapid (6 to 100 inches/hour)
  5 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
  13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
  21 to 32 inches: rapid or very rapid (6 to 100 inches/hour)
  32 to 80 inches: very rapid (20 to 100 inches/hour)

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, kame terraces, outwash plains
Parent material: sandy glaciofluvial deposits from predominantly crystalline rock and sandstone
Reaction (pH):
  0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
  5 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
  9 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)

14 to 17 inches: very strongly acid to moderately acid (4.5 to 6.0)
17 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
32 to 58 inches: very strongly acid to slightly acid (4.5 to 6.5)
58 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:

0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 3 inches: rapid (6 to 20 inches/hour)
3 to 5 inches: rapid (6 to 20 inches/hour)
5 to 9 inches: rapid (6 to 20 inches/hour)
9 to 14 inches: rapid (6 to 20 inches/hour)
14 to 17 inches: rapid (6 to 20 inches/hour)
17 to 32 inches: very rapid (20 to 100 inches/hour)
32 to 58 inches: very rapid (20 to 100 inches/hour)
58 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Woodland

- Haul roads are limited by moderately steep and steep slopes. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads. Applying gravel base material during construction of haul roads will help overcome limitations due to sandy surface layers.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

This unit has moderately steep and steep slopes. The slope adversely influences the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of moderately steep and steep slopes, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slopes of this unit impedes trafficability of heavy machinery and increases the cost of building roads and streets. Special designs may be necessary. Routing roads around this unit can reduce construction and maintenance costs.

650C—Monadnock-Adams-Colton complex, 3 to 15 percent slopes, bouldery

Setting

This gently sloping to strongly sloping unit is on integrated till plains, outwash plains and terraces in the Adirondack Mountains.

Map Unit Composition

Major Components
Monadnock: 35 percent
Adams: 30 percent
Colton: 20 percent

Inclusions
Croghan: 5 percent
Berkshire: 3 percent
Naumburg: 2 percent
Potsdam: 1 percent
Unnamed: 4 percent

Included in mapping are areas of Croghan and Naumburg soils where a seasonal high water table is present. Small areas of Berkshire soils are included where loamy textures are more than 40 inches deep. Potsdam soils are included in areas having a dense till substratum.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Monadnock, very bouldery: no
  Adams: no
  Colton: no
Hydrologic group:
  Monadnock, very bouldery: B
  Adams: A
  Colton: A

Soil Properties and Qualities

Monadnock, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: low hills, valley sides
Parent material: loamy supraglacial till over sandy and gravelly till
Reaction (pH):
  0 to 1 inch: extremely acid to strongly acid (3.5 to 5.5 in $CaCl_2$)
  1 to 2 inches: extremely acid to moderately acid (3.5 to 6.0)

2 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
7 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
27 to 41 inches: extremely acid to moderately acid (3.5 to 6.0)
41 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)

Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 2 inches: moderate (0.6 to 2 inches/hour)
2 to 7 inches: moderate (0.6 to 2 inches/hour)
7 to 14 inches: moderate (0.6 to 2 inches/hour)
14 to 27 inches: moderate (0.6 to 2 inches/hour)
27 to 41 inches: moderately rapid (2 to 6 inches/hour)
41 to 72 inches: moderately rapid (2 to 6 inches/hour)

Adams

Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, kame terraces, outwash plains
Parent material: sandy glaciofluvial deposits from predominantly crystalline rock and sandstone

Reaction (pH):
0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
5 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
9 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
14 to 17 inches: very strongly acid to moderately acid (4.5 to 6.0)
17 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
32 to 58 inches: very strongly acid to slightly acid (4.5 to 6.5)
58 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 3 inches: rapid (6 to 20 inches/hour)
3 to 5 inches: rapid (6 to 20 inches/hour)
5 to 9 inches: rapid (6 to 20 inches/hour)
9 to 14 inches: rapid (6 to 20 inches/hour)
14 to 17 inches: rapid (6 to 20 inches/hour)
17 to 32 inches: very rapid (20 to 100 inches/hour)
32 to 58 inches: very rapid (20 to 100 inches/hour)
58 to 72 inches: very rapid (20 to 100 inches/hour)

Colton

Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low

Shrink-swell potential: low
Landform: outwash plains, kame terraces
Parent material: sandy and gravelly glaciofluvial deposits of predominantly granitic rock, with lesser amounts of sandstone and schist
Reaction (pH):
0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
21 to 32 inches: extremely acid to moderately acid (3.5 to 6.0)
32 to 80 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
3 to 4 inches: rapid or very rapid (6 to 100 inches/hour)
4 to 5 inches: rapid or very rapid (6 to 100 inches/hour)
5 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
21 to 32 inches: rapid or very rapid (6 to 100 inches/hour)
32 to 80 inches: very rapid (20 to 100 inches/hour)

Use and Management

Woodland

- The Monadnock part of this unit is very bouldery till. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very boulder surface conditions.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions on Monadnock part of this unit.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Strongly sloping areas of this unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute the ground water. Large rock fragments on the surface of the Monadnock part of this unit may impede excavation, system installation and traffic of heavy machinery. Onsite

investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The strongly sloping areas of these soils impede trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

650D—Monadnock-Adams-Colton complex 15 to 35 percent slopes, bouldery

Setting

This unit is on moderately steep to steep areas of integrated till plains, outwash plains, kames, and terraces in the Adirondack Mountains.

Map Unit Composition

Major Components
Monadnock, very bouldery: 40 percent
Adams: 30 percent
Colton: 20 percent

Inclusions
Berkshire: 2 percent
Croghan: 2 percent
Naumburg: 1 percent
Potsdam: 1 percent
Unnamed: 4 percent

Included in mapping are areas of Berkshire soils where loamy textures are more than 40 inches deep. Small areas of Croghan and Naumburg soils are included in low areas where a seasonal high water table is present. Potsdam soils are included in areas having a dense till substratum.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
    Monadnock, very bouldery: no
    Adams: no
    Colton: no
Hydrologic group:
    Monadnock, very bouldery: B
    Adams: A
    Colton: A

Soil Properties and Qualities

Monadnock, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate

Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: valley sides, low hills
Parent material: loamy supraglacial till over sandy and gravelly till
Reaction (pH):
- 0 to 1 inch: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
- 1 to 2 inches: extremely acid to moderately acid (3.5 to 6.0)
- 2 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
- 7 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
- 14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
- 27 to 41 inches: extremely acid to moderately acid (3.5 to 6.0)
- 41 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)

Permeability
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 2 inches: moderate (0.6 to 2 inches/hour)
- 2 to 7 inches: moderate (0.6 to 2 inches/hour)
- 7 to 14 inches: moderate (0.6 to 2 inches/hour)
- 14 to 27 inches: moderate (0.6 to 2 inches/hour)
- 27 to 41 inches: moderately rapid (2 to 6 inches/hour)
- 41 to 72 inches: moderately rapid (2 to 6 inches/hour)

Adams

Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, kame terraces, outwash plains
Parent material: sandy glaciofluvial deposits from predominantly crystalline rock and sandstone
Reaction (pH):
- 0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 5 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 9 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 14 to 17 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 17 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 32 to 58 inches: very strongly acid to slightly acid (4.5 to 6.5)
- 58 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
- 0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 3 inches: rapid (6 to 20 inches/hour)
- 3 to 5 inches: rapid (6 to 20 inches/hour)
- 5 to 9 inches: rapid (6 to 20 inches/hour)
- 9 to 14 inches: rapid (6 to 20 inches/hour)
- 14 to 17 inches: rapid (6 to 20 inches/hour)
- 17 to 32 inches: very rapid (20 to 100 inches/hour)
- 32 to 58 inches: very rapid (20 to 100 inches/hour)
- 58 to 72 inches: very rapid (20 to 100 inches/hour)

Colton

Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Landform: outwash plains, kame terraces
Parent material: sandy and gravelly glaciofluvial deposits of predominantly granitic rock, with lesser amounts of sandstone and schist
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
- 5 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
- 13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
- 21 to 32 inches: extremely acid to moderately acid (3.5 to 6.0)
- 32 to 80 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
- 3 to 4 inches: rapid or very rapid (6 to 100 inches/hour)
- 4 to 5 inches: rapid or very rapid (6 to 100 inches/hour)
- 5 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
- 13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
- 21 to 32 inches: rapid or very rapid (6 to 100 inches/hour)
- 32 to 80 inches: very rapid (20 to 100 inches/hour)

Use and Management

Woodland

- This unit is moderately steep and steep. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Applying gravel base material during construction of haul roads will help overcome limitations due to sandy surface layers. The Monadnock part of this unit is very bouldery till. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery conditions.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations on some areas of this unit.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep and steep slopes adversely affect the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of the steep slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slope of these soils impedes trafficability of heavy machinery and increases the cost of building roads and streets. Special designs may be necessary. Routing new roads around this unit can save on construction and maintenance costs.

651C—Monadnock-Tunbridge-Sabattis complex, rolling, rocky, very bouldery

Setting

This nearly level to rolling map unit consists of mountain side slopes and low lying areas in the Adirondack foothills. Tunbridge soils are moderately deep to bedrock, mainly granite and gneiss. Slope ranges from 0 to 15 percent.

Map Unit Composition

Major Components

Monadnock, very bouldery: 40 percent
Tunbridge, rolling, very bouldery: 25 percent
Sabattis, very bouldery: 15 percent

Inclusions

Becket: 5 percent
Lyman: 3 percent
Adams: 2 percent
Adirondack: 2 percent
Tughill: 1 percent
Wonsqueak: 1 percent
Rock outcrop: 1 percent
Unnamed: 5 percent

Included in mapping are areas of well drained Becket and somewhat poorly drained Adirondack soils having a dense substratum. On ridgetops and nose slopes are inclusions of shallow to bedrock Lyman soils. Small areas of Adams soils occur in sandy outwash deposits. Small areas of Tughill soils are included where wet areas are more gravelly than Sabattis soils. Wonsqueak soils are included in places with surface organic layers thicker than 16 inches.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
Monadnock, very bouldery: no
Tunbridge, rolling, very bouldery: no
Sabattis, very bouldery: yes
Hydrologic group:
Monadnock, very bouldery: B
Tunbridge, rolling, very bouldery: C
Sabattis, very bouldery: C/D

Soil Properties and Qualities

Monadnock, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: moraines, valley sides
Parent material: loamy supraglacial till over sandy and gravelly till
Reaction (pH):
0 to 1 inch: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
1 to 2 inches: extremely acid to moderately acid (3.5 to 6.0)
2 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
7 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
27 to 41 inches: extremely acid to moderately acid (3.5 to 6.0)
41 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 2 inches: moderate (0.6 to 2 inches/hour)
2 to 7 inches: moderate (0.6 to 2 inches/hour)
7 to 14 inches: moderate (0.6 to 2 inches/hour)
14 to 27 inches: moderate (0.6 to 2 inches/hour)
27 to 41 inches: moderately rapid (2 to 6 inches/hour)
41 to 72 inches: moderately rapid (2 to 6 inches/hour)

Tunbridge, rolling, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountainsides
Parent material: moderately deep loamy till

Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
- 5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
- 22 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 3 to 4 inches: moderate (0.6 to 2 inches/hour)
- 4 to 5 inches: moderate (0.6 to 2 inches/hour)
- 5 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 22 inches: moderate (0.6 to 2 inches/hour)
- 22 inches, bedrock

Sabattis, very bouldery

Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
- Water table kind: apparent
- Ponding: frequent

Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: depressions
Parent material: loamy till
Reaction (pH):
- 0 to 8 inches: extremely acid to moderately acid (3.5 to 6.0 in CaCl2)
- 8 to 11 inches: very strongly acid to neutral (4.5 to 7.3)
- 11 to 21 inches: strongly acid to neutral (5.1 to 7.3)
- 21 to 31 inches: strongly acid to slightly alkaline (5.1 to 7.8)
- 31 to 37 inches: strongly acid to slightly alkaline (5.1 to 7.8)
- 37 to 72 inches: strongly acid to slightly alkaline (5.1 to 7.8)

Permeability:
- 0 to 8 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 8 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 11 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 21 to 31 inches: moderately slow or moderate (0.2 to 2 inches/hour)
- 31 to 37 inches: moderately slow or moderate (0.2 to 2 inches/hour)
- 37 to 72 inches: moderately slow or moderate (0.2 to 2 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Woodland

- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations due to shallow soils. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery

or extremely stony surface conditions. The Sabattis part of this unit is in the form of depressions that can have ponding. Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads due to wetness. Consult the Water Features table for months of seasonal saturation.
- Areas of Sabattis soils that are subject to ponding should be avoided when locating log landings. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery or extremely stony surface conditions.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal saturation or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.
- Managing for more wetness tolerant species in areas of Sabattis soils will help overcome seedling mortality limitations due to ponding. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The slope influences the use of machinery and the ease of excavation in most areas of this unit. Special building practices and designs may be required to ensure satisfactory performance. The depth to bedrock and hardness of the bedrock in the Tunbridge part of this unit greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.

Because of the potential for ponding, Sabattis soils are very limited as a site for dwellings with basements.

Septic Tank Absorption Fields

Moderately deep to bedrock conditions in the Tunbridge part of this unit limit the filtering capacity of these soils and greatly increase the difficulty of proper installation of effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater. Because of ponding, the Sabattis part of this unit is very limited as a site for septic tank absorption fields. The moderate rate of fluid movement through these soils may impede the absorption and proper treatment of effluent from conventional septic systems. Boulders on the surface may impede excavation, system installation and traffic of heavy machinery. Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade

material and supplemental drainage can help reduce this limitation. Strongly sloping areas of this unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation. Depth to hard bedrock in the Tunbridge part of this unit may limit site preparation such as shaping and grading of roads and streets. Areas of Sabattis soils are very limited for local roads and streets due to the potential for ponding.

651D—Monadnock-Tunbridge complex, hilly, rocky, very bouldery

Setting

This unit is on hilly to steep mountain side slopes in the Adirondack foothills. Tunbridge soils are moderately deep to bedrock, mainly granite and gneiss. Slope ranges from 15 to 35 percent.

Map Unit Composition

Major Components
Monadnock, very bouldery: 45 percent
Tunbridge, hilly, very bouldery: 35 percent

Inclusions
Becket: 6 percent
Lyman: 4 percent
Adams: 2 percent
Adirondack: 2 percent
Rock outcrop: 1 percent
Unnamed: 5 percent

Included in mapping are areas of well drained Becket and somewhat poorly drained Adirondack soils having a dense substratum. On ridgetops and nose slopes are inclusions of shallow to bedrock Lyman soils. Small areas of Adams soils occur in sandy outwash deposits.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Monadnock, very bouldery: no
  Tunbridge, hilly, very bouldery: no
Hydrologic group:
  Monadnock, very bouldery: B
  Tunbridge, hilly, very bouldery: C

Soil Properties and Qualities

Monadnock, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate

Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: moraines, valley sides
Parent material: loamy supraglacial till over sandy and gravelly till
Reaction (pH):
  0 to 1 inch: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
  1 to 2 inches: extremely acid to moderately acid (3.5 to 6.0)
  2 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
  7 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
  14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
  27 to 41 inches: extremely acid to moderately acid (3.5 to 6.0)
  41 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 2 inches: moderate (0.6 to 2 inches/hour)
  2 to 7 inches: moderate (0.6 to 2 inches/hour)
  7 to 14 inches: moderate (0.6 to 2 inches/hour)
  14 to 27 inches: moderate (0.6 to 2 inches/hour)
  27 to 41 inches: moderately rapid (2 to 6 inches/hour)
  41 to 72 inches: moderately rapid (2 to 6 inches/hour)

Tunbridge, hilly, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountainsides
Parent material: moderately deep loamy till
Reaction (pH):
  0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
  4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
  8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
  22 inches, bedrock
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  3 to 4 inches: moderate (0.6 to 2 inches/hour)
  4 to 5 inches: moderate (0.6 to 2 inches/hour)
  5 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 22 inches: moderate (0.6 to 2 inches/hour)
  22 inches, bedrock

Use and Management

Woodland
• Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Locating

haul roads on soils that are deeper to bedrock will help overcome construction limitations due to moderately deep soils. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery conditions.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The hilly slope adversely influences the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance. The depth to bedrock and hardness of the bedrock in the Tunbridge part of this unit greatly reduce the ease of excavation and may increase the cost of constructing foundations and installing utilities.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of the hilly slope, special design and installation techniques are needed for effluent distribution lines. Onsite investigation may reveal lesser sloping and deep inclusions that could be utilized. The somewhat limited depth to bedrock in the Tunbridge part of this unit reduces the filtering capacity of these soils and greatly increases the difficulty of proper installation of effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The hilly slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary. Depth to hard bedrock in the Tunbridge part of this unit may limit site preparation such as shaping and grading of roads and streets. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

651F—Monadnock-Tunbridge complex, very steep, rocky, very bouldery

Setting

This unit is on very steep mountain side slopes in the Adirondack foothills. Tunbridge soils are moderately deep to bedrock, mainly granite and gneiss. Slope ranges from 35 to 60 percent.

Map Unit Composition

Major Components
Monadnock, very bouldery: 50 percent
Tunbridge, very bouldery: 35 percent

Inclusions
Becket: 6 percent
Lyman: 4 percent
Adams: 1 percent
Rock outcrop: 1 percent
Unnamed: 3 percent

Included in mapping are areas of well drained Becket soils having a dense substratum. On ridgetops and nose slopes are inclusions of shallow to bedrock Lyman soils. Small areas of Adams soils occur in sandy outwash deposits.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
- Monadnock, very bouldery: no
- Tunbridge, very bouldery: no

Hydrologic group:
- Monadnock, very bouldery: B
- Tunbridge, very bouldery: C

Soil Properties and Qualities

Monadnock, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: moraines, valley sides
Parent material: loamy supraglacial till over sandy and gravelly till
Reaction (pH):
- 0 to 1 inch: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
- 1 to 2 inches: extremely acid to moderately acid (3.5 to 6.0)
- 2 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
- 7 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
- 14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
- 27 to 41 inches: extremely acid to moderately acid (3.5 to 6.0)
- 41 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 2 inches: moderate (0.6 to 2 inches/hour)
- 2 to 7 inches: moderate (0.6 to 2 inches/hour)
- 7 to 14 inches: moderate (0.6 to 2 inches/hour)
- 14 to 27 inches: moderate (0.6 to 2 inches/hour)

27 to 41 inches: moderately rapid (2 to 6 inches/hour)
41 to 72 inches: moderately rapid (2 to 6 inches/hour)

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountainsides
Parent material: moderately deep loamy till
Reaction (pH):
0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
22 inches, bedrock
Permeability
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 4 inches: moderate (0.6 to 2 inches/hour)
4 to 5 inches: moderate (0.6 to 2 inches/hour)
5 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 22 inches: moderate (0.6 to 2 inches/hour)
22 inches, bedrock

Use and Management

Woodland
- This unit is very steep. Avoiding construction of haul roads on slopes exceeding 35 percent is recommended. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions. Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations due to moderately deep Tunbridge soils.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to very bouldery surface conditions can be overcome by careful planning and preparation of skid trails and operation of large rubber tired skidding equipment.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The very steep slope and presence of rock outcrops adversely affects the safe use of machinery and the ease of excavation.

Septic Tank Absorption Fields

Other sites should be considered for this use because of the very steep slope and presence of rock outcrops. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The very steep slope of these soils and presence of rock outcrops seriously impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Special designs may be necessary. Routing new roads around this unit will likely save on construction and maintenance costs.

653C—Monadnock fine sandy loam, 3 to 15 percent slopes, very bouldery

Setting

This unit is on gently sloping to strongly sloping lower side slopes within the Adirondack Mountains.

Map Unit Composition

Major Components

Monadnock, very bouldery: 80 percent

Inclusions

Adams: 5 percent
Becket: 5 percent
Colton: 5 percent
Skerry: 3 percent
Tunbridge: 2 percent

Included in mapping are areas of Adams and Colton soils on sandy and gravelly outwash deposits. Inclusions of Becket and Skerry soils have dense substrata within 40 inches deep. Small areas of Tunbridge soils are included where moderately deep to bedrock.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Monadnock, very bouldery: no
Hydrologic group:
  Monadnock, very bouldery: B

Soil Properties and Qualities

Monadnock, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: moraines, valley sides
Parent material: loamy supraglacial till over sandy and gravelly till
Reaction (pH):
- 0 to 1 inch: extremely acid to strongly acid (3.5 to 5.5 in $CaCl_2$)
- 1 to 2 inches: extremely acid to moderately acid (3.5 to 6.0)
- 2 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
- 7 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
- 14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
- 27 to 41 inches: extremely acid to moderately acid (3.5 to 6.0)
- 41 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 2 inches: moderate (0.6 to 2 inches/hour)
- 2 to 7 inches: moderate (0.6 to 2 inches/hour)
- 7 to 14 inches: moderate (0.6 to 2 inches/hour)
- 14 to 27 inches: moderate (0.6 to 2 inches/hour)
- 27 to 41 inches: moderately rapid (2 to 6 inches/hour)
- 41 to 72 inches: moderately rapid (2 to 6 inches/hour)

Use and Management

Woodland

These soils are very bouldery. Using larger, more powerful machinery during construction of haul roads and log landings and locating these structures in areas with fewer surface boulders or stones will help overcome limitations due to very bouldery conditions.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The strongly sloping part of this unit influences the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. Surface boulders may impede excavation, system installation and traffic of heavy machinery. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The strongly sloping areas of this unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

653D—Monadnock fine sandy loam, 15 to 35 percent slopes, very bouldery

Setting

This unit is on moderately steep and steep side slopes in the Adirondack Mountains.

Map Unit Composition

Major Components
Monadnock, very bouldery: 80 percent

Inclusions
Adams: 7 percent
Becket: 5 percent
Colton: 5 percent
Skerry: 2 percent
Tunbridge: 1 percent

Included in mapping are areas of Adams and Colton soils in sandy and gravelly outwash deposits. Inclusions of Becket and Skerry soils have dense substrata within 40 inches deep. Small areas of Tunbridge soils are included where moderately deep to bedrock.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Monadnock, very bouldery: no
Hydrologic group:
  Monadnock, very bouldery: B

Soil Properties and Qualities

Monadnock, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: moraines, valley sides
Parent material: loamy supraglacial till over sandy and gravelly till

Reaction (pH):
- 0 to 1 inch: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
- 1 to 2 inches: extremely acid to moderately acid (3.5 to 6.0)
- 2 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
- 7 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
- 14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
- 27 to 41 inches: extremely acid to moderately acid (3.5 to 6.0)
- 41 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 2 inches: moderate (0.6 to 2 inches/hour)
- 2 to 7 inches: moderate (0.6 to 2 inches/hour)
- 7 to 14 inches: moderate (0.6 to 2 inches/hour)
- 14 to 27 inches: moderate (0.6 to 2 inches/hour)
- 27 to 41 inches: moderately rapid (2 to 6 inches/hour)
- 41 to 72 inches: moderately rapid (2 to 6 inches/hour)

Use and Management

Woodland

- This unit is moderately steep and steep. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Employing larger, more powerful machinery during construction while locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep and steep slopes adversely influence the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use because of the moderately steep and steep slopes. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slopes of this unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Special designs may be necessary. Routing new roads around this unit may save construction and maintenance costs.

708B—Adirondack-Sabattis-Tughill complex, 0 to 8 percent slopes, very bouldery

Setting

This nearly level and gently sloping map unit is in depressions and along drainageways between hills and mountains of the Adirondack foothills. It has a firm, dense substratum in the Adirondack part.

Map Unit Composition

Major Components
Adirondack, very bouldery: 35 percent
Sabattis, very bouldery: 30 percent
Tughill, very bouldery: 20 percent

Inclusions
Skerry: 5 percent
Pillsbury: 3 percent
Monadnock: 2 percent
Searsport: 2 percent
Burnt Vly: 1 percent
Naumburg: 1 percent
Pleasant Lake: 1 percent

Included in mapping are areas of moderately well drained Skerry soils on slightly higher and more convex positions. Inclusions of Pillsbury soils occur where there is little or no spodic material in the subsoil. Well drained Monadnock soils are included on higher landscape positions, and lack the dense substrata of Adirondack soils. The very poorly drained Searsport and somewhat poorly drained Naumburg soils occur in places of deep sandy deposits. Also included are Pleasant Lake and Burnt Vly soils formed in thick organic soils.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Adirondack, very bouldery: no
    Sabattis, very bouldery: yes
    Tughill, very bouldery: yes
Hydrologic group:
    Adirondack, very bouldery: C/D
    Sabattis, very bouldery: C/D
    Tughill, very bouldery: C/D

Soil Properties and Qualities

Adirondack, very bouldery
Drainage class: somewhat poorly drained

Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 15 to 38 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
 Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: low hills
Parent material: firm loamy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4 in CaCl2)
 2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4 in CaCl2)
 4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
 6 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
 8 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
 9 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)
 18 to 26 inches: very strongly acid to moderately acid (4.5 to 6.0)
 26 to 34 inches: strongly acid or moderately acid (5.1 to 6.0)
 34 to 43 inches: strongly acid or moderately acid (5.1 to 6.0)
 43 to 72 inches: strongly acid or moderately acid (5.1 to 6.0)
Permeability:
 0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 2 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 4 to 6 inches: moderate (0.6 to 2 inches/hour)
 6 to 8 inches: moderate (0.6 to 2 inches/hour)
 8 to 9 inches: moderate (0.6 to 2 inches/hour)
 9 to 18 inches: moderate (0.6 to 2 inches/hour)
 18 to 26 inches: moderate (0.6 to 2 inches/hour)
 26 to 34 inches: slow (0.06 to 0.2 inches/hour)
 34 to 43 inches: slow (0.06 to 0.2 inches/hour)
 43 to 72 inches: slow (0.06 to 0.2 inches/hour)

Sabattis, very bouldery
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
 Water table kind: apparent
Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: drainageways, depressions
Parent material: mucky loamy till
Reaction (pH):
 0 to 8 inches: extremely acid to moderately acid (3.5 to 6.0 in CaCl2)
 8 to 11 inches: very strongly acid to neutral (4.5 to 7.3)
 11 to 21 inches: strongly acid to neutral (5.1 to 7.3)
 21 to 31 inches: strongly acid to slightly alkaline (5.1 to 7.8)
 31 to 37 inches: strongly acid to slightly alkaline (5.1 to 7.8)
 37 to 72 inches: strongly acid to slightly alkaline (5.1 to 7.8)

Permeability:
0 to 8 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
8 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
11 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
21 to 31 inches: moderately slow or moderate (0.2 to 2 inches/hour)
31 to 37 inches: moderately slow or moderate (0.2 to 2 inches/hour)
37 to 72 inches: moderately slow or moderate (0.2 to 2 inches/hour)

Tughill, very bouldery
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
Water table kind: apparent
Ponding: frequent
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: depressions, drainageways
Parent material: mucky gravelly till
Reaction (pH):
0 to 2 inches: ultra acid to very strongly acid (1.8 to 5.0 in CaCl2)
2 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
8 to 22 inches: extremely acid to slightly acid (3.5 to 6.5)
22 to 38 inches: strongly acid to neutral (5.1 to 7.3)
38 to 51 inches: strongly acid to neutral (5.1 to 7.3)
Permeability:
0 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
2 to 8 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
8 to 22 inches: moderate (0.6 to 2 inches/hour)
22 to 38 inches: slow to moderate (0.06 to 2 inches/hour)
38 to 51 inches: slow to moderate (0.06 to 2 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Woodland
- Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal saturation. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Areas of Sabattis and Tughill soils with thick organic surfaces or soils that are subject to ponding should be avoided when locating log landings. Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.

- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Development

Erosion and sediment control may be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of these soils to bear a load without movement and causes wet basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance. Because of the potential for ponding in the Sabattis and Tughill parts of this unit, the lowest areas of this unit are poorly suited as a site for dwellings with basements and should be substituted for higher ground.

Septic Tank Absorption Fields

Other sites should be considered for this use. The seasonal high water table and ponding in areas of these soils greatly limits the absorption and proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table and ponding impede excavation and grading and reduce the bearing capacity of these soils. Adding suitable subgrade material to raise the roadbed may help reduce this limitation. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce this limitation.

711C—Adirondack-Tunbridge-Burnt Vly, 3 to 15 percent slopes, very bouldery

Setting

This gently sloping to strongly sloping map unit is on bedrock controlled areas of glaciated uplands and includes depressions between low hills and ridges. It occurs within the foothills of the Adirondack Mountains. It has a firm, dense substratum in the Adirondack part. Tunbridge soils are moderately deep to bedrock, mainly granite and gneiss.

Map Unit Composition

Major Components
Adirondack, very bouldery: 40 percent
Tunbridge, very bouldery: 30 percent
Burnt Vly: 15 percent

Inclusions
Monadnock: 5 percent
Skerry: 5 percent
Searsport: 3 percent
Wonsqueak: 2 percent

Included in mapping are areas of very deep, well drained Monadnock and moderately well drained Skerry soils on knolls and side slopes. Searsport soils are included in areas of deep sandy deposits near drainageways and in depressions. Also included are deep organic Wonsqueak soils which have less sand in the substratum than Burnt Vly soils.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Adirondack, very bouldery: no
    Tunbridge, very bouldery: no
    Burnt Vly: yes
Hydrologic group:
    Adirondack, very bouldery: C/D
    Tunbridge, very bouldery: C
    Burnt Vly: D

Soil Properties and Qualities

Adirondack, very bouldery
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 15 to 38 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: low hills
Parent material: firm loamy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
    0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4 in CaCl2)
    2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4 in CaCl2)
    4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
    6 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
    8 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
    9 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)
    18 to 26 inches: very strongly acid to moderately acid (4.5 to 6.0)
    26 to 34 inches: strongly acid or moderately acid (5.1 to 6.0)

34 to 43 inches: strongly acid or moderately acid (5.1 to 6.0)
43 to 72 inches: strongly acid or moderately acid (5.1 to 6.0)
Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
4 to 6 inches: moderate (0.6 to 2 inches/hour)
6 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 9 inches: moderate (0.6 to 2 inches/hour)
9 to 18 inches: moderate (0.6 to 2 inches/hour)
18 to 26 inches: moderate (0.6 to 2 inches/hour)
26 to 34 inches: slow (0.06 to 0.2 inches/hour)
34 to 43 inches: slow (0.06 to 0.2 inches/hour)
43 to 72 inches: slow (0.06 to 0.2 inches/hour)

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: low hills
Parent material: moderately deep loamy till
Reaction (pH):
0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
22 inches, bedrock
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 4 inches: moderate (0.6 to 2 inches/hour)
4 to 5 inches: moderate (0.6 to 2 inches/hour)
5 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 22 inches: moderate (0.6 to 2 inches/hour)
22 inches, bedrock

Burnt Vly
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
Water table kind: apparent
Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: swamps, depressions

Parent material: highly decomposed woody organic material over sandy glaciolacustrine deposits
Reaction (pH):
- 0 to 1 inch: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
- 1 to 3 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
- 3 to 11 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
- 11 to 26 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
- 26 to 30 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
- 30 to 60 inches: extremely acid to slightly acid (3.5 to 6.5)

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 3 to 11 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 11 to 26 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 26 to 30 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 30 to 60 inches: rapid (6 to 20 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Woodland

- The soils in this map unit are limited by ponding, seasonal high water table, very bouldery surface conditions or moderately deep to bedrock soil conditions. Avoiding construction during periods of seasonal saturation, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal saturation.
- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations as a result of the moderately deep Tunbridge soils. Areas of Burnt Vly soils, with a thick organic surface and subject to ponding, should be avoided when locating haul roads. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations and the rutting hazard can be minimized by avoiding timber harvesting during periods of seasonal saturation or logging during winter months when soils are frozen. Areas of Burnt Vly soils with a thick organic surface should only be harvested in the winter months by tracked equipment in years when the soils are frozen and snow pack is deep enough to protect them from rutting. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery conditions.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of these soils to bear a load without movement and causes wet basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance. Because of the potential for ponding, the Burnt Vly soils are not suitable as a site for dwellings with basements. The depth to bedrock in the Tunbridge part of this unit and hardness of the bedrock adversely affect the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. The seasonal high water table in many areas of this map unit greatly limits the absorption and proper treatment of effluent from conventional septic systems. Because of ponding, the Burnt Vly soils are not suitable as a site for septic tank absorption fields. The depth to dense material in Adirondack soils and moderately deep to bedrock Tunbridge soils reduces the filtering capacity of this map unit and may greatly increase the difficulty of proper installation of the distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table in this unit impedes excavation and grading and reduces the bearing capacity of these soils. The Burnt Vly soils are very limited for local roads and streets due to the potential for ponding and subsidence of organic material. Adding suitable subgrade material to raise the roadbed may help reduce these limitations. Local roads and streets may also be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce this limitation.

721C—Becket-Tunbridge-Skerry complex, 3 to 15 percent slopes, rocky, very bouldery

Setting

This gently sloping to strongly sloping map unit is on side slopes and footslopes of bedrock controlled areas in the Adirondack Mountains. It has a firm, dense substratum. Tunbridge soils are moderately deep to bedrock, mainly granite and gneiss.

Map Unit Composition

Major Components
Becket, very bouldery: 40 percent
Tunbridge, very bouldery: 25 percent
Skerry, very bouldery: 20 percent

Inclusions
Adirondack: 5 percent

Lyman: 3 percent
Monadnock: 3 percent
Adams: 1 percent
Rock outcrop: 1 percent
Unnamed: 2 percent

Included in mapping are areas of somewhat poorly drained Adirondack soils at footslopes and toeslopes. Inclusions of shallow to bedrock Lyman soils and rock outcrop occur on upper side slopes and ridgetops. Monadnock soils are included where the densic material is greater than 40 inches deep. Also included are Adams soils on outwash terraces.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
 Becket, very bouldery: no
 Tunbridge, very bouldery: no
 Skerry, very bouldery: no
Hydrologic group:
 Becket, very bouldery: C
 Tunbridge, very bouldery: C
 Skerry, very bouldery: C/D

Soil Properties and Qualities

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
 Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
 0 to 1 inch: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
 1 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
 3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
 5 to 8 inches: extremely acid to slightly acid (3.5 to 6.5)
 8 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
 15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
 26 to 38 inches: very strongly acid to neutral (4.5 to 7.3)
 38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 3 to 5 inches: moderate (0.6 to 2 inches/hour)
 5 to 8 inches: moderate (0.6 to 2 inches/hour)

8 to 15 inches: moderate (0.6 to 2 inches/hour)
15 to 26 inches: moderate (0.6 to 2 inches/hour)
26 to 38 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: moderately deep loamy till
Reaction (pH):
0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
22 inches, bedrock
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 4 inches: moderate (0.6 to 2 inches/hour)
4 to 5 inches: moderate (0.6 to 2 inches/hour)
5 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 22 inches: moderate (0.6 to 2 inches/hour)
22 inches, bedrock

Skerry, very bouldery
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
0 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
3 to 5 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
5 to 7 inches: extremely acid to slightly acid (3.5 to 6.5)
7 to 11 inches: extremely acid to slightly acid (3.5 to 6.5)
11 to 17 inches: extremely acid to slightly acid (3.5 to 6.5)
17 to 29 inches: extremely acid to slightly acid (3.5 to 6.5)
29 to 72 inches: very strongly acid to neutral (4.5 to 7.3)

Permeability:

0 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 5 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
5 to 7 inches: moderate (0.6 to 2 inches/hour)
7 to 11 inches: moderate (0.6 to 2 inches/hour)
11 to 17 inches: moderate (0.6 to 2 inches/hour)
17 to 29 inches: moderate (0.6 to 2 inches/hour)
29 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Woodland

- The Becket and Skerry components of this map unit have periods of seasonal high water table. The Tunbridge component of this map unit is moderately deep to bedrock. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to areas moderately deep Tunbridge soil and rock outcrops. Employing larger, more powerful machinery during construction and locating haul roads in areas that have fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance. The depth to bedrock in areas of Tunbridge soils and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. The strongly sloping areas of this unit also diminish the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The seasonal high water table, the moderate to slow rate of fluid movement through these soils, and depth to dense material or bedrock in certain areas of this map unit

may limit the absorption and proper treatment of effluent from conventional septic systems. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Because of strongly sloping areas, special design and installation techniques may be needed for distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table in part of this unit may impede excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce this limitation. Depth to hard bedrock in areas of Tunbridge soils may limit site preparation such as shaping and grading of roads and streets. The strongly sloping areas of this unit may impede trafficability of heavy machinery and increase the cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

721D—Becket-Tunbridge complex, 15 to 35 percent slopes, rocky, very bouldery

Setting

This map unit is on moderately steep and steep side slopes of bedrock controlled areas in the Adirondack Mountains. It has a firm, dense substratum. Tunbridge soils are moderately deep to bedrock, mainly granite and gneiss.

Map Unit Composition

Major Components
Becket, very bouldery: 50 percent
Tunbridge, very bouldery: 30 percent

Inclusions
Monadnock: 5 percent
Lyman: 3 percent
Skerry: 3 percent
Adirondack: 2 percent
Adams: 1 percent
Rock outcrop: 1 percent
Unnamed: 5 percent

Included in mapping are areas of Monadnock soils where the densic material is greater than 40 inches deep. Inclusions of shallow to bedrock Lyman soils and rock outcrop occur on upper side slopes and ridgetops. Small areas of moderately well drained Skerry and somewhat poorly drained Adirondack soils are at footslopes and near drainageways. Also included are Adams soils on outwash terraces and other sandy deposits.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Becket, very bouldery: no
  Tunbridge, very bouldery: no

Hydrologic group:
Becket, very bouldery: C
Tunbridge, very bouldery: C

Soil Properties and Qualities

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
0 to 1 inch: ultra acid to moderately acid (1.8 to 6.0 in $CaCl_2$)
1 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in $CaCl_2$)
3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
5 to 8 inches: extremely acid to slightly acid (3.5 to 6.5)
8 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
26 to 38 inches: very strongly acid to neutral (4.5 to 7.3)
38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 5 inches: moderate (0.6 to 2 inches/hour)
5 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 15 inches: moderate (0.6 to 2 inches/hour)
15 to 26 inches: moderate (0.6 to 2 inches/hour)
26 to 38 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: moderately deep loamy till
Reaction (pH):
0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in $CaCl_2$)
1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in $CaCl_2$)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)

5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
22 inches, bedrock

Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 4 inches: moderate (0.6 to 2 inches/hour)
4 to 5 inches: moderate (0.6 to 2 inches/hour)
5 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 22 inches: moderate (0.6 to 2 inches/hour)
22 inches, bedrock

Use and Management

Woodland

- This unit is moderately steep and steep. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations due to areas of moderately deep Tunbridge soils and rock outcrops. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to wetness in the spring. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions. Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment

control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table seeping over the dense substratum may limit the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The depth to bedrock in areas of Tunbridge soils and hardness of the bedrock adversely affect the ease of excavation and increase the difficulty of constructing foundations and installing utilities. The moderately steep and steep slopes also adversely impact the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. The seasonal high water table and moderate to slow rate of fluid movement in Becket parts of this unit may limit the absorption and proper treatment of effluent from conventional septic systems. The depth to dense material or bedrock reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Because of the moderately steep slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table and depth of hard bedrock may impede excavation and grading of roads. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. The moderately steep slope of these soils impedes trafficability of heavy machinery and increases the cost of building roads and streets. Special designs may be necessary.

721F—Becket-Tunbridge complex, 35 to 60 percent slopes, rocky, very bouldery

Setting

This map unit is on very steep side slopes and near ridgetops of bedrock controlled areas in the Adirondack Mountains. It has a firm, dense substratum. Tunbridge soils are moderately deep to bedrock, mainly granite and gneiss.

Map Unit Composition

Major Components

Becket, very bouldery: 50 percent
Tunbridge, very bouldery: 35 percent

Inclusions

Monadnock: 6 percent
Lyman: 3 percent
Adams: 1 percent
Rock outcrop: 1 percent
Unnamed: 4 percent

Included in mapping are areas of Monadnock soils where the densic material is greater than 40 inches deep. Inclusions of shallow to bedrock Lyman soils and rock outcrop occur on upper side slopes near ridgetops. Also included are Adams soils on outwash terraces and other sandy deposits.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Becket, very bouldery: no
  Tunbridge, very bouldery: no
Hydrologic group:
  Becket, very bouldery: C
  Tunbridge, very bouldery: C

Soil Properties and Qualities

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
  0 to 1 inch: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
  1 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
  3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
  5 to 8 inches: extremely acid to slightly acid (3.5 to 6.5)
  8 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
  15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
  26 to 38 inches: very strongly acid to neutral (4.5 to 7.3)
  38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  3 to 5 inches: moderate (0.6 to 2 inches/hour)
  5 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 15 inches: moderate (0.6 to 2 inches/hour)
  15 to 26 inches: moderate (0.6 to 2 inches/hour)
  26 to 38 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
  38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate

Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: moderately deep loamy till
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in $CaCl_2$)
- 1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in $CaCl_2$)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
- 5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
- 22 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 3 to 4 inches: moderate (0.6 to 2 inches/hour)
- 4 to 5 inches: moderate (0.6 to 2 inches/hour)
- 5 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 22 inches: moderate (0.6 to 2 inches/hour)
- 22 inches, bedrock

Use and Management

Woodland

- These soils are very steep and very bouldery. Avoiding construction of haul roads on slopes exceeding 35 percent and during periods of seasonal wetness is recommended. Adequate design of drainage features such as water bars and ditches and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations due to areas moderately deep Tunbridge soils and rock outcrops. Employing larger, more powerful machinery during construction and locating haul roads on less sloping areas with fewer surface boulders or stones areas will help overcome construction limitations due to very bouldery surface conditions.
- Log landings should be located in areas that are less sloping and have fewer surface boulders.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery and very steep surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard may be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be very severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The very steep slopes seriously limit safe use of machinery. The depth to bedrock and hardness of the bedrock in areas of Tunbridge soils greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities.

Septic Tank Absorption Fields

Other sites should be considered for this use because of the very steep slopes and depth to bedrock or dense soil material. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The very steep slope of these soils seriously impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Routing of new roads around this map unit should be considered to minimize construction and maintenance costs.

723C—Becket sandy loam, 3 to 15 percent slopes, very bouldery

Setting

This unit is on gently sloping to strongly sloping side slopes of till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components

Becket, very bouldery: 80 percent

Inclusions

Skerry: 8 percent
Adirondack: 3 percent
Monadnock: 3 percent
Adams: 2 percent
Tunbridge: 2 percent
Colton: 1 percent
Unnamed: 1 percent

Included in mapping are areas of moderately well drained Skerry and somewhat poorly drained Adirondack soils on footslopes, on slightly concave positions, and along drainageways. Monadnock soils are included in areas where the dense substratum is deeper than 40 inches. Small areas of Adams and Colton soils are included as deposits of outwash sand and gravel. Moderately deep Tunbridge soils are also included on nose slopes and ridgetops controlled by bedrock.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s

Hydric soil rating:
  Becket, very bouldery: no
Hydrologic group:
  Becket, very bouldery: C

Soil Properties and Qualities

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
  0 to 1 inch: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
  1 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
  3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
  5 to 8 inches: extremely acid to slightly acid (3.5 to 6.5)
  8 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
  15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
  26 to 38 inches: very strongly acid to neutral (4.5 to 7.3)
  38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  3 to 5 inches: moderate (0.6 to 2 inches/hour)
  5 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 15 inches: moderate (0.6 to 2 inches/hour)
  15 to 26 inches: moderate (0.6 to 2 inches/hour)
  26 to 38 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
  38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Woodland
- Haul roads may be affected by seepage water flowing above the dense substratum of these soils during early spring each year. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with

fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table that is perched on the dense substratum may cause seepage into basements during the spring. Structures may need special design to avoid damage from wetness. The strongly sloping areas of this unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The seasonal high water table in some areas of these soils during spring may limit the absorption and proper treatment of effluent from conventional septic systems. These moderately deep soils over a dense material tend to have limited filtering capacity and the dense substratum may impede the proper installation of effluent distribution lines. The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of effluent from conventional septic systems. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Because of these strongly sloping areas, special design and installation techniques may be required. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

723D—Becket sandy loam, 15 to 35 percent slopes, very bouldery

Setting

This unit is on moderately steep side slopes in the Adirondack Mountain foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components

Becket, very bouldery: 85 percent

Inclusions
Tunbridge: 5 percent
Monadnock: 3 percent
Skerry: 3 percent
Adams: 1 percent
Adirondack: 1 percent
Colton: 1 percent
Unnamed: 1 percent

Included in mapping are areas of moderately deep Tunbridge soils on nose slopes and ridgetops controlled by bedrock. Monadnock soils are included in areas where the dense substratum is deeper than 40 inches. Inclusions of moderately well drained Skerry and somewhat poorly drained Adirondack soils occur on footslopes, head slopes and along drainageways. Small areas of Adams and Colton soils are included as deposits of outwash sand and gravel.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
    Becket, very bouldery: no
Hydrologic group:
    Becket, very bouldery: C

Soil Properties and Qualities

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
    0 to 1 inch: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
    1 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
    3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
    5 to 8 inches: extremely acid to slightly acid (3.5 to 6.5)
    8 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
    15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
    26 to 38 inches: very strongly acid to neutral (4.5 to 7.3)
    38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
    0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    3 to 5 inches: moderate (0.6 to 2 inches/hour)
    5 to 8 inches: moderate (0.6 to 2 inches/hour)
    8 to 15 inches: moderate (0.6 to 2 inches/hour)

15 to 26 inches: moderate (0.6 to 2 inches/hour)
26 to 38 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Woodland

- Haul roads are subject to seepage in the spring and erosion on these moderately steep and steep slopes. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep slope causes safety concerns in use of machinery and adversely affects ease of excavation. Water seepage over the dense substratum may influence when excavations can take place and result in wet basements Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of moderately steep conditions, special design and installation techniques are needed for effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Water seepage in the spring may limit the absorption and proper

treatment of effluent from conventional septic systems. Also, the moderately deep dense substratum adversely affects the filtering capacity of these soils and may greatly increase the difficulty of proper installation of distribution lines. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads. Special designs, including routing of roads along the contour, may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

725B—Skerry-Becket complex, 3 to 15 percent slopes, very bouldery

Setting

This unit is on gently sloping to strongly sloping till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components

Skerry, very bouldery: 55 percent
Becket, very bouldery: 30 percent

Inclusions

Adirondack: 7 percent
Monadnock: 3 percent
Adams: 2 percent
Colton: 1 percent
Tunbridge: 1 percent
Unnamed: 1 percent

Included in mapping are areas of somewhat poorly drained Adirondack soils on slightly concave positions and along drainageways. Monadnock soils are included in areas where the dense substratum is deeper than 40 inches. Small areas of Adams and Colton soils are included as deposits of outwash sand and gravel. Moderately deep Tunbridge soils are also included on nose slopes and ridgetops controlled by bedrock.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
- Skerry, very bouldery: no
- Becket, very bouldery: no

Hydrologic group:
- Skerry, very bouldery: C/D
- Becket, very bouldery: C

Soil Properties and Qualities

Skerry, very bouldery
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountain valleys, till plains
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
    0 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
    3 to 5 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
    5 to 7 inches: extremely acid to slightly acid (3.5 to 6.5)
    7 to 11 inches: extremely acid to slightly acid (3.5 to 6.5)
    11 to 17 inches: extremely acid to slightly acid (3.5 to 6.5)
    17 to 29 inches: extremely acid to slightly acid (3.5 to 6.5)
    29 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
    0 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    3 to 5 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    5 to 7 inches: moderate (0.6 to 2 inches/hour)
    7 to 11 inches: moderate (0.6 to 2 inches/hour)
    11 to 17 inches: moderate (0.6 to 2 inches/hour)
    17 to 29 inches: moderate (0.6 to 2 inches/hour)
    29 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountain valleys, till plains
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
    0 to 1 inch: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
    1 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
    3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
    5 to 8 inches: extremely acid to slightly acid (3.5 to 6.5)
    8 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
    15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)

26 to 38 inches: very strongly acid to neutral (4.5 to 7.3)
38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)

Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 5 inches: moderate (0.6 to 2 inches/hour)
5 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 15 inches: moderate (0.6 to 2 inches/hour)
15 to 26 inches: moderate (0.6 to 2 inches/hour)
26 to 38 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Woodland

- Haul roads are limited by the seasonal high water table and very bouldery surface condition. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance. Strongly sloping areas of this

unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through these soils may limit the absorption and proper treatment of effluent from conventional septic systems. The moderately deep dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of distribution lines. Surface boulders may impede excavation, system installation and traffic of heavy machinery. Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

727B—Skerry-Adirondack complex, 0 to 8 percent slopes, very bouldery

Setting

This nearly level and gently sloping map unit is on lower side slopes, footslopes, and toeslopes on till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components
Skerry, very bouldery: 45 percent
Adirondack, very bouldery: 35 percent

Inclusions
Becket: 4 percent
Sabattis: 5 percent
Burnt Vly: 2 percent
Pleasant Lake: 2 percent
Wonsqueak: 2 percent
Unnamed: 5 percent

Included in mapping are areas of well drained Becket soils on knolls and other convex places. Sabattis, Burnt Vly, Pleasant Lake, and Wonsqueak soils are included in depressions that are susceptible to ponding.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
- Skerry, very bouldery: no
- Adirondack, very bouldery: no

Hydrologic group:
- Skerry, very bouldery: C/D
- Adirondack, very bouldery: C/D

Soil Properties and Qualities

Skerry, very bouldery
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountain valleys, till plains
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
    0 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
    3 to 5 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
    5 to 7 inches: extremely acid to slightly acid (3.5 to 6.5)
    7 to 11 inches: extremely acid to slightly acid (3.5 to 6.5)
    11 to 17 inches: extremely acid to slightly acid (3.5 to 6.5)
    17 to 29 inches: extremely acid to slightly acid (3.5 to 6.5)
    29 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
    0 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    3 to 5 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    5 to 7 inches: moderate (0.6 to 2 inches/hour)
    7 to 11 inches: moderate (0.6 to 2 inches/hour)
    11 to 17 inches: moderate (0.6 to 2 inches/hour)
    17 to 29 inches: moderate (0.6 to 2 inches/hour)
    29 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Adirondack, very bouldery
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 15 to 38 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountain valleys, till plains
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
    0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4 in CaCl2)
    2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4 in CaCl2)
    4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
    6 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
    8 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
    9 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)

18 to 26 inches: very strongly acid to moderately acid (4.5 to 6.0)
26 to 34 inches: strongly acid or moderately acid (5.1 to 6.0)
34 to 43 inches: strongly acid or moderately acid (5.1 to 6.0)
43 to 72 inches: strongly acid or moderately acid (5.1 to 6.0)

Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
4 to 6 inches: moderate (0.6 to 2 inches/hour)
6 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 9 inches: moderate (0.6 to 2 inches/hour)
9 to 18 inches: moderate (0.6 to 2 inches/hour)
18 to 26 inches: moderate (0.6 to 2 inches/hour)
26 to 34 inches: slow (0.06 to 0.2 inches/hour)
34 to 43 inches: slow (0.06 to 0.2 inches/hour)
43 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Woodland

- Haul roads are limited by the seasonal high water table and very bouldery surface condition. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control

structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of most areas of this map unit to bear a load without movement and causes wet basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through these soils greatly limit the absorption and proper treatment of effluent from conventional septic systems. The moderately deep dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of distribution lines. Surface boulders may impede excavation, system installation and traffic of heavy machinery. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

741C—Potsdam-Tunbridge complex, 3 to 15 percent slopes, rocky, very bouldery

Setting

This gently sloping and strongly sloping map unit is on side slopes and shoulders of bedrock controlled areas in the foothills of the Adirondack Mountains. It has a firm, dense substratum. Tunbridge soils are moderately deep to bedrock, mainly granite and gneiss.

Map Unit Composition

Major Components

Potsdam, very bouldery: 50 percent
Tunbridge, very bouldery: 30 percent

Inclusions

Becket: 5 percent
Crary: 5 percent
Adirondack: 3 percent
Adams: 1 percent
Colton: 1 percent
Rock outcrop: 1 percent
Unnamed: 4 percent

Included in mapping are areas of Becket soils that have less silt and very fine sand in the subsoil than Potsdam soils. Inclusions of moderately well drained Crary soils and somewhat poorly drained Adirondack soils occur on footslopes and along

drainageways. Small areas of Adams and Colton soils are included near some drainageways where there are sand and gravel deposits.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Potsdam, very bouldery: no
  Tunbridge, very bouldery: no
Hydrologic group:
  Potsdam, very bouldery: C
  Tunbridge, very bouldery: C

Soil Properties and Qualities

Potsdam, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: low hills
Parent material: silty eolian deposits over firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
  0 to 2 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  2 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
  8 to 10 inches: extremely acid to moderately acid (3.5 to 6.0)
  10 to 13 inches: very strongly acid to moderately acid (4.5 to 6.0)
  13 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
  19 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
  25 to 28 inches: very strongly acid to neutral (4.5 to 7.3)
  28 to 72 inches: strongly acid to slightly alkaline (5.1 to 7.8)
Permeability:
  0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  2 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 10 inches: moderate (0.6 to 2 inches/hour)
  10 to 13 inches: moderate (0.6 to 2 inches/hour)
  13 to 19 inches: moderate (0.6 to 2 inches/hour)
  19 to 25 inches: moderate (0.6 to 2 inches/hour)
  25 to 28 inches: moderate (0.6 to 2 inches/hour)
  28 to 72 inches: slow (0.06 to 0.2 inches/hour)

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low

Surface fragment cover: very bouldery
Landform: low hills
Parent material: moderately deep loamy till
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
- 5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
- 22 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 3 to 4 inches: moderate (0.6 to 2 inches/hour)
- 4 to 5 inches: moderate (0.6 to 2 inches/hour)
- 5 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 22 inches: moderate (0.6 to 2 inches/hour)
- 22 inches, bedrock

Use and Management

Woodland

- Haul roads are limited by moderately deep to bedrock Tunbridge soils and very bouldery surface conditions. Employing larger, more powerful machinery during construction and locating haul roads and log landings in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to moderately deep Tunbridge soils.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Strongly sloping areas of this unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance. The depth to bedrock and hardness of the bedrock in the Tunbridge part of this unit may greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities.

Septic Tank Absorption Fields

The moderately deep dense material or bedrock reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater. Surface boulders may impede excavation, system installation, and traffic of heavy machinery.

Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. Strongly sloping areas of this unit impede trafficability of heavy machinery and increases the cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

741D—Potsdam-Tunbridge complex, 15 to 35 percent slopes, rocky, very bouldery

Setting

This map unit is on moderately steep and steep side slopes and shoulders of bedrock controlled areas in the foothills of the Adirondack Mountains. It has a firm, dense substratum. Tunbridge soils are moderately deep to bedrock, mainly granite and gneiss.

Map Unit Composition

Major Components
Potsdam, very bouldery: 50 percent
Tunbridge, very bouldery: 30 percent

Inclusions
Crary: 4 percent
Lyman: 4 percent
Monadnock: 3 percent
Adams: 2 percent
Adirondack: 2 percent
Colton: 1 percent
Rock outcrop: 1 percent
Unnamed: 3 percent

Included in mapping are areas of moderately well drained Crary soils and somewhat poorly drained Adirondack soils on footslopes and along drainageways. Lyman soils are included where bedrock is shallow. Inclusions of Monadnock soils occur where the substratum is friable. Small areas of Adams and Colton soils are included near streams where there are sand and gravel deposits.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
- Potsdam, very bouldery: no
- Tunbridge, very bouldery: no

Hydrologic group:
- Potsdam, very bouldery: C
- Tunbridge, very bouldery: C

Soil Properties and Qualities

Potsdam, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: silty eolian deposits over firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
- 0 to 2 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 2 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 10 inches: extremely acid to moderately acid (3.5 to 6.0)
- 10 to 13 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 13 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 19 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 25 to 28 inches: very strongly acid to neutral (4.5 to 7.3)
- 28 to 72 inches: strongly acid to slightly alkaline (5.1 to 7.8)

Permeability:
- 0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 10 inches: moderate (0.6 to 2 inches/hour)
- 10 to 13 inches: moderate (0.6 to 2 inches/hour)
- 13 to 19 inches: moderate (0.6 to 2 inches/hour)
- 19 to 25 inches: moderate (0.6 to 2 inches/hour)
- 25 to 28 inches: moderate (0.6 to 2 inches/hour)
- 28 to 72 inches: slow (0.06 to 0.2 inches/hour)

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: moderately deep loamy till
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
- 5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
- 22 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)

1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 4 inches: moderate (0.6 to 2 inches/hour)
4 to 5 inches: moderate (0.6 to 2 inches/hour)
5 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 22 inches: moderate (0.6 to 2 inches/hour)
22 inches, bedrock

Use and Management

Woodland

- Haul roads are limited by moderately steep and steep slopes, moderately deep to bedrock Tunbridge soils and very bouldery surface conditions. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to moderately deep soils.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep and steep slopes adversely affect the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance. The depth to bedrock and hardness of the bedrock in areas of Tunbridge soils greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities.

Septic Tank Absorption Fields

Other sites should be considered for this use. These moderately steep and steep slopes require special design and installation techniques for effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Moderately deep dense material or bedrock reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately

treated effluent to enter and contaminate the groundwater. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slope of this unit impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets.

743C—Potsdam loam, 3 to 15 percent slopes, very bouldery

Setting

This unit is on strongly sloping side slopes in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components
Potsdam, very bouldery: 80 percent

Inclusions
Crary: 8 percent
Monadnock: 3 percent
Tunbridge: 3 percent
Adams: 2 percent
Colton: 1 percent
Unnamed: 3 percent

Included in mapping are areas of moderately well drained Crary soils on footslopes and head slopes. Inclusions of Monadnock soils occur where the substratum is friable. Tunbridge soils are included where bedrock is moderately deep. Small areas of Adams and Colton soils are included near streams where there are sand and gravel deposits.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Potsdam, very bouldery: no
Hydrologic group:
    Potsdam, very bouldery: C

Soil Properties and Qualities

Potsdam, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: greater than 60 inches
Flooding: none

Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: low hills
Parent material: silty eolian deposits over firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
- 0 to 2 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 2 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 10 inches: extremely acid to moderately acid (3.5 to 6.0)
- 10 to 13 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 13 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 19 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 25 to 28 inches: very strongly acid to neutral (4.5 to 7.3)
- 28 to 72 inches: strongly acid to slightly alkaline (5.1 to 7.8)

Permeability:
- 0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 10 inches: moderate (0.6 to 2 inches/hour)
- 10 to 13 inches: moderate (0.6 to 2 inches/hour)
- 13 to 19 inches: moderate (0.6 to 2 inches/hour)
- 19 to 25 inches: moderate (0.6 to 2 inches/hour)
- 25 to 28 inches: moderate (0.6 to 2 inches/hour)
- 28 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Woodland

Haul roads are limited by very bouldery surface conditions. Employing larger, more powerful machinery during construction and locating haul roads and log landings in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.

Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Strongly sloping areas of this unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The moderately deep dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of effluent distribution lines. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. Strongly sloping areas of this unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

743D—Potsdam loam, 15 to 35 percent slopes, very bouldery

Setting

This unit is on moderately steep and steep side slopes in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components
Potsdam, very bouldery: 80 percent

Inclusions
Crary: 5 percent
Monadnock: 4 percent
Adams: 3 percent
Tunbridge: 3 percent
Colton: 2 percent
Unnamed: 3 percent

Included in mapping are areas of moderately well drained Crary soils on footslopes and head slopes. Inclusions of Monadnock soils occur where the substratum is friable. Small areas of Adams and Colton soils are included near streams where there are sand and gravel deposits. Tunbridge soils are included where bedrock is moderately deep.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Potsdam, very bouldery: no
Hydrologic group:
  Potsdam, very bouldery: C

Soil Properties and Qualities

Potsdam, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery

Landform: hills
Parent material: silty eolian deposits over firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
- 0 to 2 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 2 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 10 inches: extremely acid to moderately acid (3.5 to 6.0)
- 10 to 13 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 13 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 19 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 25 to 28 inches: very strongly acid to neutral (4.5 to 7.3)
- 28 to 72 inches: strongly acid to slightly alkaline (5.1 to 7.8)

Permeability:
- 0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 10 inches: moderate (0.6 to 2 inches/hour)
- 10 to 13 inches: moderate (0.6 to 2 inches/hour)
- 13 to 19 inches: moderate (0.6 to 2 inches/hour)
- 19 to 25 inches: moderate (0.6 to 2 inches/hour)
- 25 to 28 inches: moderate (0.6 to 2 inches/hour)
- 28 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Woodland

- Haul roads are limited by moderately steep and steep slopes and very bouldery surface conditions. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Employing larger, more powerful machinery during construction and locating haul roads and log landings in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep and steep slope adversely affects the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Moderately steep and steep slopes require special design and installation techniques for effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Moderately deep dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of distribution lines. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slopes of this unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Special designs may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

745C—Crary-Potsdam complex, 3 to 15 percent slopes, very bouldery

Setting

This gently sloping to strongly sloping map unit is on lower side slopes and footslopes on eolian covered foothills of the Adirondack mountains. It has a firm, dense substratum.

Map Unit Composition

Major Components

Crary, very bouldery: 40 percent
Potsdam, very bouldery: 35 percent

Inclusions

Pillsbury: 8 percent
Adirondack: 5 percent
Becket: 4 percent
Monadnock: 3 percent
Adams: 2 percent
Tunbridge: 2 percent
Colton: 1 percent

Included in mapping are areas of somewhat poorly drained Pillsbury and Adirondack soils on toeslopes and along drainageways. Becket soils are included where the subsoil has less silt and very fine sand. Inclusions of Monadnock soils occur where the substratum is friable. Small areas of Adams and Colton soils are included near streams where there are outwash sand and gravel deposits. Tunbridge soils are included where bedrock is moderately deep.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Crary, very bouldery: no
  Potsdam, very bouldery: no

Hydrologic group:
Crary, very bouldery: C/D
Potsdam, very bouldery: C

Soil Properties and Qualities

Crary, very bouldery
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 18 to 36 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountain valleys
Parent material: silty eolian deposits over firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
0 to 4 inches: very strongly acid to moderately acid (4.5 to 6.0)
4 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
8 to 16 inches: very strongly acid to moderately acid (4.5 to 6.0)
16 to 21 inches: very strongly acid to moderately acid (4.5 to 6.0)
21 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
25 to 72 inches: strongly acid to slightly alkaline (5.1 to 7.8)
Permeability:
0 to 4 inches: moderate (0.6 to 2 inches/hour)
4 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 16 inches: moderate (0.6 to 2 inches/hour)
16 to 21 inches: moderate (0.6 to 2 inches/hour)
21 to 25 inches: moderate (0.6 to 2 inches/hour)
25 to 72 inches: slow (0.06 to 0.2 inches/hour)

Potsdam, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountain valleys
Parent material: silty eolian deposits over firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
0 to 2 inches: ultra acid to strongly acid (1.8 to 5.5 in $CaCl_2$)
2 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
8 to 10 inches: extremely acid to moderately acid (3.5 to 6.0)
10 to 13 inches: very strongly acid to moderately acid (4.5 to 6.0)
13 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
19 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)

25 to 28 inches: very strongly acid to neutral (4.5 to 7.3)
28 to 72 inches: strongly acid to slightly alkaline (5.1 to 7.8)

Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 10 inches: moderate (0.6 to 2 inches/hour)
10 to 13 inches: moderate (0.6 to 2 inches/hour)
13 to 19 inches: moderate (0.6 to 2 inches/hour)
19 to 25 inches: moderate (0.6 to 2 inches/hour)
25 to 28 inches: moderate (0.6 to 2 inches/hour)
28 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Woodland

- Haul roads are limited by the seasonal high water table and very bouldery surface condition. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance. Strongly sloping areas of this

unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through these soils may limit the absorption and proper treatment of effluent from conventional septic systems. The moderately deep dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of distribution lines. Surface boulders may impede excavation, system installation and traffic of heavy machinery. Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

747B—Crary-Adirondack complex, 0 to 8 percent slopes, very bouldery

Setting

This nearly level and gently sloping unit is on lower side slopes, footslopes, and toeslopes on eolian covered till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components
Crary, very bouldery: 45 percent
Adirondack, very bouldery: 35 percent

Inclusions
Skerry: 5 percent
Pillsbury: 8 percent
Sabattis: 2 percent
Unnamed: 5 percent

Included in mapping are areas of moderately well drained Skerry soils on slightly more convex places having less silt and very fine sand in the subsoil. Inclusions of somewhat poorly drained Pillsbury soils occur where the spodic material in the subsoil is weak or absent compared to Adirondack soils. Sabattis soils are included in depressions that are susceptible to ponding.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Crary, very bouldery: no
  Adirondack, very bouldery: no

Hydrologic group:
Crary, very bouldery: C/D
Adirondack, very bouldery: C/D

Soil Properties and Qualities

Crary, very bouldery
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 18 to 36 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountain valleys
Parent material: silty eolian deposits over firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
0 to 4 inches: very strongly acid to moderately acid (4.5 to 6.0)
4 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
8 to 16 inches: very strongly acid to moderately acid (4.5 to 6.0)
16 to 21 inches: very strongly acid to moderately acid (4.5 to 6.0)
21 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
25 to 72 inches: strongly acid to slightly alkaline (5.1 to 7.8)
Permeability:
0 to 4 inches: moderate (0.6 to 2 inches/hour)
4 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 16 inches: moderate (0.6 to 2 inches/hour)
16 to 21 inches: moderate (0.6 to 2 inches/hour)
21 to 25 inches: moderate (0.6 to 2 inches/hour)
25 to 72 inches: slow (0.06 to 0.2 inches/hour)

Adirondack, very bouldery
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 15 to 38 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountain valleys
Parent material: firm loamy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4 in $CaCl_2$)
2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4 in $CaCl_2$)
4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
6 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
8 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
9 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)

18 to 26 inches: very strongly acid to moderately acid (4.5 to 6.0)
26 to 34 inches: strongly acid or moderately acid (5.1 to 6.0)
34 to 43 inches: strongly acid or moderately acid (5.1 to 6.0)
43 to 72 inches: strongly acid or moderately acid (5.1 to 6.0)

Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
4 to 6 inches: moderate (0.6 to 2 inches/hour)
6 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 9 inches: moderate (0.6 to 2 inches/hour)
9 to 18 inches: moderate (0.6 to 2 inches/hour)
18 to 26 inches: moderate (0.6 to 2 inches/hour)
26 to 34 inches: slow (0.06 to 0.2 inches/hour)
34 to 43 inches: slow (0.06 to 0.2 inches/hour)
43 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Woodland

- Haul roads are limited by the seasonal high water table and very bouldery surface condition. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of most areas of this map unit to bear a load without movement and causes wet basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through these soils greatly limit the absorption and proper treatment of effluent from conventional septic systems. The moderately deep dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of distribution lines. Surface boulders may impede excavation, system installation and traffic of heavy machinery. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

831C—Tunbridge-Lyman complex, 3 to 15 percent slopes, very rocky, very bouldery

Setting

This unit is on gently sloping to strongly sloping bedrock controlled ridgetops and nose slopes in the Adirondack Mountains.

Map Unit Composition

Major Components

Tunbridge, very bouldery: 50 percent
Lyman, very bouldery: 25 percent

Inclusions

Rock outcrop: 7 percent
Becket: 5 percent
Knob Lock: 5 percent
Adirondack: 3 percent
Adams: 2 percent
Potsdam: 2 percent
Colton: 1 percent

Included in mapping are areas of very deep Becket, Adirondack, and Potsdam soils having a dense substratum. Knob Lock soils are included on summits and nose slopes, and have a thicker accumulation of organic matter. Inclusions of sandy Adams soils and gravelly Colton soils are on outwash terraces along lower slopes.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s

Hydric soil rating:
- Tunbridge, very bouldery: no
- Lyman, very bouldery: no

Hydrologic group:
- Tunbridge, very bouldery: C
- Lyman, very bouldery: D

Soil Properties and Qualities

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: moderately deep loamy till
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
- 5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
- 22 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 3 to 4 inches: moderate (0.6 to 2 inches/hour)
- 4 to 5 inches: moderate (0.6 to 2 inches/hour)
- 5 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 22 inches: moderate (0.6 to 2 inches/hour)
- 22 inches, bedrock

Lyman, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low or low
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: shallow loamy till
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
- 1 to 2 inches: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
- 14 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 3 inches: moderate (0.6 to 2 inches/hour)
- 3 to 4 inches: moderate (0.6 to 2 inches/hour)
- 4 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 14 inches: moderate (0.6 to 2 inches/hour)
- 14 inches, bedrock

Use and Management

Woodland

- Haul roads are limited by depth to bedrock and very bouldery surface conditions. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to shallow soils. Employing larger, more powerful machinery during construction and locating haul roads and log landings in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Excavation may be more feasible within inclusions of deeper soils. Strongly sloping areas of this unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of depth to bedrock, these soils are very limited as a site for conventional septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. Strongly sloping areas of this unit impede

trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

831D—Tunbridge-Lyman complex, 15 to 35 percent slopes, very rocky, very bouldery

Setting

This unit is on moderately steep and steep bedrock controlled ridgetops in the Adirondack Mountains.

Map Unit Composition

Major Components
Tunbridge, very bouldery: 50 percent
Lyman, very bouldery: 30 percent

Inclusions
Rock outcrop: 5 percent
Becket: 4 percent
Knob Lock: 4 percent
Adirondack: 2 percent
Adams: 1 percent
Colton: 1 percent
Unnamed: 3 percent

Included in mapping are areas of very deep Becket and Adirondack soils having a dense substratum. Knob Lock soils are included on summits and nose slopes, and have a thicker accumulation of organic matter. Inclusions of sandy Adams soils and gravelly Colton soils are on outwash terraces along lower slopes and streams.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Tunbridge, very bouldery: no
  Lyman, very bouldery: no
Hydrologic group:
  Tunbridge, very bouldery: C
  Lyman, very bouldery: D

Soil Properties and Qualities

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: moderately deep loamy till

Reaction (pH):
0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
22 inches, bedrock
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 4 inches: moderate (0.6 to 2 inches/hour)
4 to 5 inches: moderate (0.6 to 2 inches/hour)
5 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 22 inches: moderate (0.6 to 2 inches/hour)
22 inches, bedrock

Lyman, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low or low
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: shallow loamy till
Reaction (pH):
0 to 1 inch: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
1 to 2 inches: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
8 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
14 inches, bedrock
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 3 inches: moderate (0.6 to 2 inches/hour)
3 to 4 inches: moderate (0.6 to 2 inches/hour)
4 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 14 inches: moderate (0.6 to 2 inches/hour)
14 inches, bedrock

Use and Management

Woodland

- Haul roads are limited by moderately steep and steep slopes, depth to bedrock and very bouldery conditions. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to shallow soils. Employing larger, more powerful machinery during construction and locating haul roads and log landings in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.

- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Excavation may be more feasible within inclusions of deeper soils. The moderately steep and steep slopes adversely affect the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of shallow depth to bedrock and steep slopes, these soils are poorly suited as a site for conventional septic tank absorption fields. Use of alternative systems may be possible in areas of deeper and less sloping soil inclusions. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slopes of this unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Special designs may be necessary. Routing new roads around this map unit will help save construction and maintenance costs. Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.

831F—Tunbridge-Lyman complex, 35 to 60 percent slopes, very rocky, very bouldery

Setting

This unit is on very steep bedrock controlled ridgetops and upper side slopes in the Adirondack Mountains.

Map Unit Composition

Major Components
Tunbridge, very bouldery: 45 percent
Lyman, very bouldery: 35 percent

Inclusions
Rock outcrop: 8 percent
Knob Lock: 7 percent
Becket: 3 percent
Adams: 1 percent
Unnamed: 1 percent

Included in mapping are areas of Knob Lock soils on summits and nose slopes having a thicker accumulation of organic matter. Inclusions of Becket soils are very deep and have a dense substratum. Inclusions of sandy Adams soils are on outwash terraces along lower slopes and streams.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Tunbridge, very bouldery: no
  Lyman, very bouldery: no
Hydrologic group:
  Tunbridge, very bouldery: C
  Lyman, very bouldery: D

Soil Properties and Qualities

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: moderately deep loamy till
Reaction (pH):
  0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
  4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
  8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
  22 inches, bedrock
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  3 to 4 inches: moderate (0.6 to 2 inches/hour)
  4 to 5 inches: moderate (0.6 to 2 inches/hour)
  5 to 8 inches: moderate (0.6 to 2 inches/hour)

8 to 22 inches: moderate (0.6 to 2 inches/hour)
22 inches, bedrock

Lyman, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low or low
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: shallow loamy till
Reaction (pH):
0 to 1 inch: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
1 to 2 inches: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
8 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
14 inches, bedrock
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 3 inches: moderate (0.6 to 2 inches/hour)
3 to 4 inches: moderate (0.6 to 2 inches/hour)
4 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 14 inches: moderate (0.6 to 2 inches/hour)
14 inches, bedrock

Use and Management

Woodland

- Haul roads are limited by very steep slopes, depth to bedrock and very bouldery conditions. Avoiding construction of haul roads on slopes exceeding 35 percent is recommended. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to shallow soils. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions and very steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic

salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The very steep slope and bedrock ledges seriously limit the safe use of machinery. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of the very steep slope and shallow bedrock, conventional septic systems will likely fail and special designs will be required. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The very steep slopes of this unit greatly impede trafficability of heavy machinery and significantly increase the difficulty and cost of building roads and streets. Blasting and special designs may be necessary. New roads should be routed around this map unit.

833C—Tunbridge-Adirondack-Lyman complex, 0 to 25 percent slopes, rocky, very bouldery

Setting

This nearly level to moderately steep map unit is on bedrock controlled till plains in the Adirondack foothills. Adirondack soils have a firm, dense substratum.

Map Unit Composition

Major Components

Tunbridge, very bouldery: 45 percent
Adirondack, very bouldery: 25 percent
Lyman, very bouldery: 15 percent

Inclusions

Becket: 5 percent
Skerry: 3 percent
Pillsbury: 2 percent
Sabattis: 2 percent
Burnt Vly: 1 percent
Pleasant Lake: 1 percent
Rock outcrop: 1 percent

Included in mapping are areas of very deep, well drained Becket and moderately well drained Skerry soils on knolls, side slopes and other convex places. Very deep, somewhat poorly drained Pillsbury soils are also included, but have weak or absent spodic material in the subsoil compared to Adirondack soils. Sabattis, Burnt Vly and Pleasant Lake soils are included in depressions that are susceptible to ponding.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Tunbridge, very bouldery: no
  Adirondack, very bouldery: no
  Lyman, very bouldery: no
Hydrologic group:
  Tunbridge, very bouldery: C
  Adirondack, very bouldery: C/D
  Lyman, very bouldery: D

Soil Properties and Qualities

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hills
Parent material: moderately deep loamy till
Reaction (pH):
  0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
  4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
  8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
  22 inches, bedrock
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  3 to 4 inches: moderate (0.6 to 2 inches/hour)
  4 to 5 inches: moderate (0.6 to 2 inches/hour)
  5 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 22 inches: moderate (0.6 to 2 inches/hour)
  22 inches, bedrock

Adirondack, very bouldery
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 15 to 38 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountain valleys
Parent material: firm loamy lodgment till derived from igneous and metamorphic rock

Reaction (pH):
- 0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4 in CaCl2)
- 2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4 in CaCl2)
- 4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
- 6 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
- 8 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
- 9 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)
- 18 to 26 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 26 to 34 inches: strongly acid or moderately acid (5.1 to 6.0)
- 34 to 43 inches: strongly acid or moderately acid (5.1 to 6.0)
- 43 to 72 inches: strongly acid or moderately acid (5.1 to 6.0)

Permeability:
- 0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 4 to 6 inches: moderate (0.6 to 2 inches/hour)
- 6 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 9 inches: moderate (0.6 to 2 inches/hour)
- 9 to 18 inches: moderate (0.6 to 2 inches/hour)
- 18 to 26 inches: moderate (0.6 to 2 inches/hour)
- 26 to 34 inches: slow (0.06 to 0.2 inches/hour)
- 34 to 43 inches: slow (0.06 to 0.2 inches/hour)
- 43 to 72 inches: slow (0.06 to 0.2 inches/hour)

Lyman, very bouldery

Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low or low
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hills
Parent material: shallow loamy till
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
- 1 to 2 inches: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
- 14 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 3 inches: moderate (0.6 to 2 inches/hour)
- 3 to 4 inches: moderate (0.6 to 2 inches/hour)
- 4 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 14 inches: moderate (0.6 to 2 inches/hour)
- 14 inches, bedrock

Use and Management

Woodland

- Haul roads are limited by the seasonal high water table, depth to bedrock and very bouldery surface conditions. Locating haul roads on soils that are deep to

bedrock will help overcome construction limitations due to shallow soils. In areas of somewhat poorly drained Adirondack soils, avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.

- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to rocky, very bouldery surface conditions.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Excavation may be more feasible within inclusions of deep soils. Strongly sloping and moderately steep areas of this unit significantly influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance. In areas of Adirondack soils, the seasonal high water table severely limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

Other sites should be considered for this use. This map unit is very limited as a site for conventional septic tank absorption fields because of the depth to bedrock, depth to dense material, seasonal high water table, very bouldery surface conditions and areas of moderately steep slopes. Use of alternative systems may be possible in areas of deeper soil inclusions. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets. The seasonal high water table in the Adirondack part of this unit impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

836C—Tunbridge-Wonsqueak-Knob Lock complex, 0 to 25 percent slopes, very rocky, very bouldery

Setting

This nearly level to moderately steep map unit is on bedrock controlled till plains in the Adirondack foothills.

Map Unit Composition

Major Components
Tunbridge, very bouldery: 45 percent
Wonsqueak: 20 percent
Knob Lock, very bouldery: 15 percent

Inclusions
Rock outcrop: 5 percent
Lyman: 3 percent
Sabattis: 3 percent
Adirondack: 2 percent
Skerry: 2 percent
Adams: 1 percent
Crary: 1 percent
Tughill: 1 percent
Unnamed: 2 percent

Included in mapping are areas of shallow Lyman soils that have less organic matter than Knob Lock soils. Sabattis and Tughill soils are mineral soils included along the fringe of depressions. Included in mapping are areas of very deep, somewhat poorly drained Adirondack and moderately well drained Skerry and Crary soils on side slopes. Small areas of sandy Adams soils are included near streams.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Tunbridge, very bouldery: no
  Wonsqueak: yes
  Knob Lock, very bouldery: no
Hydrologic group:
  Tunbridge, very bouldery: C
  Wonsqueak: D
  Knob Lock, very bouldery: D

Soil Properties and Qualities

Tunbridge, very bouldery
Drainage class: well drained

Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hills
Parent material: moderately deep loamy till
Reaction (pH):
  0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
  4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
  8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
  22 inches, bedrock
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  3 to 4 inches: moderate (0.6 to 2 inches/hour)
  4 to 5 inches: moderate (0.6 to 2 inches/hour)
  5 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 22 inches: moderate (0.6 to 2 inches/hour)
  22 inches, bedrock

Wonsqueak
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
  Water table kind: apparent
  Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: swamps, intermontane basins
Parent material: woody and herbaceous organic material over loamy till
Reaction (pH):
  0 to 9 inches: extremely acid to slightly acid (4.0 to 6.5 in CaCl2)
  9 to 24 inches: extremely acid to slightly acid (4.0 to 6.5 in CaCl2)
  24 to 44 inches: very strongly acid to slightly acid (4.5 to 6.5 in CaCl2)
  44 to 72 inches: strongly acid to neutral (5.1 to 7.3)
Permeability:
  0 to 9 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  9 to 24 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  24 to 44 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  44 to 72 inches: moderately slow or moderate (0.2 to 2 inches/hour)

Knob Lock, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 1 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low to moderate

Potential frost action: low
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hills
Parent material: thin organic material over unweathered bedrock
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
  1 to 3 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
  3 to 8 inches: ultra acid to very strongly acid (3.0 to 5.0 in CaCl2)
  8 inches, bedrock
Permeability:
  0 to 1 inch: moderately rapid (2 to 6 inches/hour)
  1 to 3 inches: moderately rapid (2 to 6 inches/hour)
  3 to 8 inches: moderately rapid (2 to 6 inches/hour)
  8 inches, bedrock

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Woodland

- Haul roads are limited by the seasonal high water table, depth to bedrock and very bouldery surface conditions. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to shallow soils. In areas of Wonsqueak soils, locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads due to wetness. Consult the Water Features table for months of seasonal wetness. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Areas of Wonsqueak soils with thick organic surfaces should be avoided when locating log landings. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to rocky, very bouldery surface conditions.
- The rutting hazard can be minimized by harvesting Wonsqueak soils with a thick organic surface in the winter months by tracked equipment in years when the soils are frozen and snow pack is deep enough to protect them from rutting. Carefully locating major skid trails and winching logs to them to reduce the skidder footprint and using tracked skidders will help reduce rutting in other parts of the map unit.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to ponding in the Wonsqueak part of this unit. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment

control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Excavation may be more feasible within inclusions of deep soils. Strongly sloping and moderately steep areas of this unit significantly influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance. In areas of Wonsqueak soils, the seasonal high water table and organic soil severely limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness.

Septic Tank Absorption Fields

Other sites should be considered for this use. This map unit is very limited as a site for conventional septic tank absorption fields because of the depth to bedrock, ponding, seasonal high water table, very bouldery surface conditions and areas of moderately steep slopes. Use of alternative systems may be possible in areas of deeper soil inclusions. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets. The seasonal high water table in the Wonsqueak part of this unit impedes excavation and grading and has poor load bearing capacity. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce some of these limitations.

851C—Lyman-Knob Lock complex, 3 to 15 percent slopes, very rocky, very bouldery

Setting

This gently sloping to strongly sloping map unit is on shallow ridgetops and shoulders of the Adirondack Mountains.

Map Unit Composition

Major Components

Lyman, very bouldery: 45 percent
Knob Lock, very bouldery: 30 percent

Inclusions

Rock outcrop: 5 percent
Tunbridge: 5 percent
Monadnock: 4 percent
Becket: 3 percent
Adirondack: 2 percent
Colton: 1 percent
Unnamed: 5 percent

Included in mapping are areas of moderately deep Tunbridge soils. Inclusions of Monadnock, Becket, and Adirondack soils are in areas that are very deep to bedrock. Colton soils are included on associated outwash terraces.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Lyman, very bouldery: no
  Knob Lock, very bouldery: no
Hydrologic group:
  Lyman, very bouldery: D
  Knob Lock, very bouldery: D

Soil Properties and Qualities

Lyman, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low or low
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: shallow loamy till
Reaction (pH):
  0 to 1 inch: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
  1 to 2 inches: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
  4 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
  8 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
  14 inches, bedrock
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  2 to 3 inches: moderate (0.6 to 2 inches/hour)
  3 to 4 inches: moderate (0.6 to 2 inches/hour)
  4 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 14 inches: moderate (0.6 to 2 inches/hour)
  14 inches, bedrock

Knob Lock, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 1 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: thin organic material over unweathered bedrock
Reaction (pH):
  0 to 1 inch: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
  1 to 3 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)

3 to 8 inches: ultra acid to very strongly acid (3.0 to 5.0 in CaCl2)
8 inches, bedrock

Permeability:
0 to 1 inch: moderately rapid (2 to 6 inches/hour)
1 to 3 inches: moderately rapid (2 to 6 inches/hour)
3 to 8 inches: moderately rapid (2 to 6 inches/hour)
8 inches, bedrock

Use and Management

Woodland

- Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations due to shallow soils. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Areas of Knob Lock soils with thick organic surfaces should be avoided when locating log landings. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery and very rocky surface conditions.
- Limiting timber harvesting operations to winter months when the ground is frozen is recommended for soils with thick organic surfaces and low bearing strength.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. The high organic matter content in Knob Lock areas of this unit provides low soil strength and severely affects the capacity of these soils to bear a load without movement.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of shallow soils, these soils are not suitable for conventional septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary. Strongly sloping areas of this map unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

851D—Lyman-Knob Lock complex, 15 to 35 percent slopes, very rocky, very bouldery

Setting

This unit is on moderately steep and steep side slopes associated with bedrock controlled ridgetops and nose slopes in the Adirondack Mountains.

Map Unit Composition

Major Components
Lyman, very bouldery: 45 percent
Knob Lock, very bouldery: 30 percent

Inclusions
Rock outcrop: 7 percent
Tunbridge: 5 percent
Becket: 3 percent
Monadnock: 3 percent
Adirondack: 1 percent
Colton: 1 percent
Unnamed: 5 percent

Included in mapping are areas of moderately deep Tunbridge soils. Inclusions of Becket, Monadnock, and Adirondack soils are on lower slopes and are very deep to bedrock. Colton soils are included on associated stream terraces.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
- Lyman, very bouldery: no
- Knob Lock, very bouldery: no

Hydrologic group:
- Lyman, very bouldery: D
- Knob Lock, very bouldery: D

Soil Properties and Qualities

Lyman, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low or low
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: shallow loamy till
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
- 1 to 2 inches: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)

8 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
14 inches, bedrock
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 3 inches: moderate (0.6 to 2 inches/hour)
3 to 4 inches: moderate (0.6 to 2 inches/hour)
4 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 14 inches: moderate (0.6 to 2 inches/hour)
14 inches, bedrock

Knob Lock, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 1 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: thin organic material over unweathered bedrock
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (3.0 to 4.4 in $CaCl_2$)
1 to 3 inches: ultra acid or extremely acid (3.0 to 4.4 in $CaCl_2$)
3 to 8 inches: ultra acid to very strongly acid (3.0 to 5.0 in $CaCl_2$)
8 inches, bedrock
Permeability:
0 to 1 inch: moderately rapid (2 to 6 inches/hour)
1 to 3 inches: moderately rapid (2 to 6 inches/hour)
3 to 8 inches: moderately rapid (2 to 6 inches/hour)
8 inches, bedrock

Use and Management

Woodland

- Haul roads are limited by moderately steep and steep slopes, depth to bedrock and very bouldery conditions. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to shallow soils. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Areas of soils with thick organic surfaces should be avoided when locating log landings.
- Limiting timber harvesting operations to winter months when the ground is frozen is recommended for soils with thick organic surfaces and low bearing strength. Areas of soils with thick organic surfaces should only be harvested in the winter months by tracked equipment in years when the soils are frozen and snow pack is deep enough to protect them from rutting.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining

properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. The high organic matter content in Knob Lock areas of this unit provides low soil strength and severely affects the capacity of these soils to bear a load without movement. The moderately steep and steep slopes adversely affect the safe use of machinery and the ease of excavation.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of shallow soils and steep slopes, these soils are not suitable for conventional septic tank absorption fields. Use of alternative systems may be possible in areas of deeper, less sloping soil inclusions. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Depth to hard bedrock and steep slopes limit site preparation such as shaping and grading and restrict installation of roads. Blasting may be necessary. The moderately steep and steep slopes of this unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. New roads should be routed around this map unit where possible.

851F—Lyman-Knob Lock complex, 35 to 60 percent slopes, very rocky, very bouldery

Setting

This unit is on very steep side slopes associated with bedrock controlled ridgetops and nose slopes in the Adirondack Mountains (fig. 21).

Map Unit Composition

Major Components

Lyman, very bouldery: 45 percent
Knob Lock, very bouldery: 30 percent

Inclusions

Rock outcrop: 9 percent
Tunbridge: 9 percent
Becket: 3 percent
Unnamed: 4 percent

Figure 21.—Rugged areas like this ridge in the background occur in the Adirondack Park northwest of Northville. Map unit 851F, Lyman-Knob Lock complex, is very steep and rocky. This map unit is useful for some forms of recreation and wildlife habitat. The footslopes under the evergreens in the foreground have a higher component of very deep Becket and moderately deep Tunbridge soils.

Included in mapping are areas of moderately deep Tunbridge soils. Inclusions of very deep Becket soils occurs on lower slopes.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
Lyman, very bouldery: no
Knob Lock, very bouldery: no
Hydrologic group:
Lyman, very bouldery: D
Knob Lock, very bouldery: D

Soil Properties and Qualities

Lyman, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low or low
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: shallow loamy till
Reaction (pH):
0 to 1 inch: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)

1 to 2 inches: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
8 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
14 inches, bedrock

Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 3 inches: moderate (0.6 to 2 inches/hour)
3 to 4 inches: moderate (0.6 to 2 inches/hour)
4 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 14 inches: moderate (0.6 to 2 inches/hour)
14 inches, bedrock

Knob Lock, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 1 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low to moderate
Potential frost action: low
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains, mountains
Parent material: thin organic material over unweathered bedrock
Reaction (pH):
0 to 1 inch: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
1 to 3 inches: ultra acid or extremely acid (3.0 to 4.4 in CaCl2)
3 to 8 inches: ultra acid to very strongly acid (3.0 to 5.0 in CaCl2)
8 inches, bedrock

Permeability:
0 to 1 inch: moderately rapid (2 to 6 inches/hour)
1 to 3 inches: moderately rapid (2 to 6 inches/hour)
3 to 8 inches: moderately rapid (2 to 6 inches/hour)
8 inches, bedrock

Use and Management

Woodland
- Haul roads are limited by very steep slopes, depth to bedrock, and very bouldery conditions. Avoiding construction of haul roads on slopes exceeding 35 percent is recommended. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to shallow soils. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Areas of soils with thick organic surfaces should only be harvested in the winter months by tracked equipment in years when the soils are frozen and snow pack is deep enough to protect them from rutting.

Development

Erosion and sediment control are severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The depth to bedrock and very steep slopes create unsafe conditions for most machines used during excavation, building foundations and installing utilities. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of shallow soils and very steep slopes, these soils are not suitable for conventional septic tank absorption fields. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Other sites should be considered for this use. The very steep slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads. Depth to hard bedrock also limits site preparation. Blasting may be necessary. New roads should be routed around this map unit.

931D—Mundalite-Rawsonville complex, 15 to 35 percent slopes, rocky, very bouldery

Setting

This unit is on moderately steep and steep side slopes in the Adirondack Mountains at elevations exceeding 2,200 feet above sea level. Mundalite soils have a firm, dense substratum. Rawsonville soils are moderately deep to bedrock, and mainly granite and gneiss.

Map Unit Composition

Major Components

Mundalite, very bouldery: 45 percent
Rawsonville, very bouldery: 35 percent

Inclusions

Hogback: 7 percent
Knob Lock: 4 percent
Tunbridge: 3 percent
Rock outcrop: 1 percent
Unnamed: 5 percent

Included in mapping are areas of Hogback and Knob Lock soils on ridgetops and nose slopes. Inclusions of Tunbridge soils occur in areas with lower organic carbon in the subsoil.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
- Mundalite, very bouldery: no
- Rawsonville, very bouldery: no

Hydrologic group:
- Mundalite, very bouldery: C
- Rawsonville, very bouldery: C

Soil Properties and Qualities

Mundalite, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 25 to 40 inches to densic material
Depth to seasonal high water table: 30 to 40 inches
- Water table kind: perched

Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
- 5 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
- 14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
- 27 to 37 inches: very strongly acid to slightly acid (4.5 to 6.5)
- 37 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: moderate (0.6 to 2 inches/hour)
- 3 to 5 inches: moderate (0.6 to 2 inches/hour)
- 5 to 14 inches: moderate (0.6 to 2 inches/hour)
- 14 to 27 inches: moderate (0.6 to 2 inches/hour)
- 27 to 37 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
- 37 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Rawsonville, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: moderately deep loamy till
Reaction (pH):
- 0 to 4 inches: ultra acid to very strongly acid (1.8 to 5.0 in CaCl2)
- 4 to 7 inches: ultra acid to very strongly acid (1.8 to 5.0 in CaCl2)
- 7 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
- 9 to 10 inches: extremely acid to strongly acid (3.5 to 5.5)
- 10 to 15 inches: extremely acid to strongly acid (3.5 to 5.5)
- 15 to 26 inches: extremely acid to strongly acid (3.5 to 5.5)

26 to 27 inches: extremely acid to strongly acid (3.5 to 5.5)
27 inches, bedrock

Permeability:
0 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
4 to 7 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
7 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 10 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
10 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
15 to 26 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
26 to 27 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
27 inches, bedrock

Use and Management

Woodland

- Haul roads are limited by moderately steep and steep slopes, depth to bedrock and very bouldery surface conditions. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Locating haul roads on soils that are deep to bedrock or maintaining minimal grades to reduce cut and fill on areas of Rawsonville soils will help overcome construction limitations due to moderately deep soils. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table seeping over the dense substratum may limit the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The depth to bedrock in areas of Tunbridge soils and hardness of the bedrock adversely affect the ease of excavation and increase the difficulty of constructing foundations and installing utilities. The moderately steep and steep slopes also adversely impact the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. The seasonal high water table and moderate to slow rate of fluid movement in the Becket parts of this unit may limit the absorption and proper treatment of effluent from conventional septic systems. The depth to dense material or bedrock reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Because of the moderately steep slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table and depth of hard bedrock may impede excavation and grading of roads. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. The moderately steep slope of these soils impedes trafficability of heavy machinery and increases the cost of building roads and streets. Special designs may be necessary.

931F—Mundalite-Rawsonville complex, 35 to 60 percent slopes, rocky, very bouldery

Setting

This unit is on very steep side slopes in the Adirondack Mountains at elevations exceeding 2,200 feet above sea level. Mundalite soils have a firm, dense substratum. Rawsonville soils are moderately deep to bedrock, mainly granite and gneiss.

Map Unit Composition

Major Components
Mundalite, very bouldery: 45 percent
Rawsonville, very bouldery: 35 percent

Inclusions
Hogback: 7 percent
Knob Lock: 6 percent
Tunbridge: 2 percent
Rock outcrop: 1 percent
Unnamed: 4 percent

Included in mapping are areas of Hogback and Knob Lock soils on ridgetops and nose slopes. Inclusions of Tunbridge soils occur in areas with lower organic carbon in the subsoil.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
Mundalite, very bouldery: no
Rawsonville, very bouldery: no

Hydrologic group:
- Mundalite, very bouldery: C
- Rawsonville, very bouldery: C

Soil Properties and Qualities

Mundalite, very bouldery

Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 25 to 40 inches to densic material
Depth to seasonal high water table: 30 to 40 inches
- Water table kind: perched

Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
- 5 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
- 14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
- 27 to 37 inches: very strongly acid to slightly acid (4.5 to 6.5)
- 37 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: moderate (0.6 to 2 inches/hour)
- 3 to 5 inches: moderate (0.6 to 2 inches/hour)
- 5 to 14 inches: moderate (0.6 to 2 inches/hour)
- 14 to 27 inches: moderate (0.6 to 2 inches/hour)
- 27 to 37 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
- 37 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Rawsonville, very bouldery

Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: moderately deep loamy till
Reaction (pH):
- 0 to 4 inches: ultra acid to very strongly acid (1.8 to 5.0 in CaCl2)
- 4 to 7 inches: ultra acid to very strongly acid (1.8 to 5.0 in CaCl2)
- 7 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
- 9 to 10 inches: extremely acid to strongly acid (3.5 to 5.5)
- 10 to 15 inches: extremely acid to strongly acid (3.5 to 5.5)
- 15 to 26 inches: extremely acid to strongly acid (3.5 to 5.5)

26 to 27 inches: extremely acid to strongly acid (3.5 to 5.5)
27 inches, bedrock

Permeability:
0 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
4 to 7 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
7 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 10 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
10 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
15 to 26 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
26 to 27 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
27 inches, bedrock

Use and Management

Woodland

- Haul roads are limited by very steep slopes, depth to bedrock and very bouldery surface conditions. Avoiding construction of haul roads on slopes exceeding 35 percent is recommended. Locating haul roads on soils that are deep to bedrock or maintaining minimal grades to reduce cut and fill on these soils will help overcome construction limitations due to moderately deep soils.
- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Log landings should be located in areas that are less sloping and have few surface boulders.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard may be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control are severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The very steep slopes seriously limit safe use of machinery. The depth to bedrock and hardness of the bedrock in areas of Rawsonville soils greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities.

Septic Tank Absorption Fields

Other sites should be considered for this use because of the very steep slopes and depth to bedrock or dense soil material. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The very steep slope of these soils seriously impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Routing of new roads around this map unit should be considered to minimize construction and maintenance costs.

941C—Rawsonville-Hogback complex, 3 to 15 percent slopes, very rocky, very bouldery

Setting

This gently sloping to strongly sloping unit is on bedrock controlled ridgetops, shoulders, and upper side slopes of mountains in the Adirondack region. It occurs at elevations exceeding 2,200 feet above sea level.

Map Unit Composition

Major Components

Rawsonville, very bouldery: 50 percent
Hogback, very bouldery: 25 percent

Inclusions

Rock outcrop: 7 percent
Knob Lock: 5 percent
Mundalite: 3 percent
Adirondack: 2 percent
Tunbridge: 2 percent
Lyman: 1 percent
Unnamed: 5 percent

Included in mapping are areas of Knob Lock soils having a thick accumulation of organic matter above bedrock. Inclusions of very deep Mundalite and Adirondack soils occur along drainageways and between ridges. Small areas of Tunbridge and Lyman soils are included where the subsoil has lower organic carbon.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
- Rawsonville, very bouldery: no
- Hogback, very bouldery: no

Hydrologic group:
- Rawsonville, very bouldery: C
- Hogback, very bouldery: D

Soil Properties and Qualities

Rawsonville, very bouldery

Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low

Surface fragment cover: very bouldery
Landform: mountains
Parent material: moderately deep loamy till
Reaction (pH):
- 0 to 4 inches: ultra acid to very strongly acid (1.8 to 5.0 in CaCl2)
- 4 to 7 inches: ultra acid to very strongly acid (1.8 to 5.0 in CaCl2)
- 7 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
- 9 to 10 inches: extremely acid to strongly acid (3.5 to 5.5)
- 10 to 15 inches: extremely acid to strongly acid (3.5 to 5.5)
- 15 to 26 inches: extremely acid to strongly acid (3.5 to 5.5)
- 26 to 27 inches: extremely acid to strongly acid (3.5 to 5.5)
- 27 inches, bedrock

Permeability:
- 0 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 4 to 7 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 7 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 9 to 10 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 10 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 15 to 26 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 26 to 27 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 27 inches, bedrock

Hogback, very bouldery
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: shallow loamy till
Reaction (pH):
- 0 to 1 inch: ultra acid to very strongly acid (1.8 to 5.0 in CaCl2)
- 1 to 2 inches: extremely acid or very strongly acid (3.5 to 5.0 in CaCl2)
- 2 to 3 inches: extremely acid to strongly acid (3.5 to 5.5)
- 3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
- 4 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)
- 18 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 3 inches: moderately rapid (2 to 6 inches/hour)
- 3 to 4 inches: moderately rapid (2 to 6 inches/hour)
- 4 to 18 inches: moderately rapid (2 to 6 inches/hour)
- 18 inches, bedrock

Use and Management

Woodland
- Haul roads are limited by depth to bedrock and very bouldery surface conditions. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to shallow soils. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.

- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Excavation may be more feasible within inclusions of deeper soils. Strongly sloping areas of this unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of depth to bedrock, these soils are very limited as a site for conventional septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. Strongly sloping areas of this unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

941D—Rawsonville-Hogback complex, 15 to 35 percent slopes, very rocky, very bouldery

Setting

This moderately steep and steep map unit is on bedrock controlled ridgetops, shoulders, and side slopes of mountains in the Adirondack region. It occurs at elevations exceeding 2,200 feet above sea level.

Map Unit Composition

Major Components
Rawsonville, very bouldery: 50 percent
Hogback, very bouldery: 30 percent

Inclusions
Rock outcrop: 5 percent
Knob Lock: 5 percent
Mundalite: 3 percent
Tunbridge: 2 percent
Unnamed: 5 percent

Included in mapping are areas of Knob Lock soils having a thick accumulation of organic matter above bedrock. Inclusions of very deep Mundalite soils occur along drainageways and between ridges. Small areas of Tunbridge soils are included where the subsoil has lower organic carbon.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Rawsonville, very bouldery: no
  Hogback, very bouldery: no
Hydrologic group:
  Rawsonville, very bouldery: C
  Hogback, very bouldery: D

Soil Properties and Qualities

Rawsonville, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: moderately deep loamy till
Reaction (pH):
  0 to 4 inches: ultra acid to very strongly acid (1.8 to 5.0 in CaCl2)
  4 to 7 inches: ultra acid to very strongly acid (1.8 to 5.0 in CaCl2)
  7 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
  9 to 10 inches: extremely acid to strongly acid (3.5 to 5.5)
  10 to 15 inches: extremely acid to strongly acid (3.5 to 5.5)
  15 to 26 inches: extremely acid to strongly acid (3.5 to 5.5)
  26 to 27 inches: extremely acid to strongly acid (3.5 to 5.5)
  27 inches, bedrock
Permeability:
  0 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  4 to 7 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  7 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 10 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

10 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
15 to 26 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
26 to 27 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
27 inches, bedrock

Hogback, very bouldery
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: shallow loamy till
Reaction (pH):
0 to 1 inch: ultra acid to very strongly acid (1.8 to 5.0 in CaCl2)
1 to 2 inches: extremely acid or very strongly acid (3.5 to 5.0 in CaCl2)
2 to 3 inches: extremely acid to strongly acid (3.5 to 5.5)
3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
4 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)
18 inches, bedrock
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 3 inches: moderately rapid (2 to 6 inches/hour)
3 to 4 inches: moderately rapid (2 to 6 inches/hour)
4 to 18 inches: moderately rapid (2 to 6 inches/hour)
18 inches, bedrock

Use and Management

Woodland
- Haul roads are limited by moderately steep and steep slopes, depth to bedrock and very bouldery conditions. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to shallow soils. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.

- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Excavation may be more feasible within inclusions of deeper soils. The moderately steep and steep slopes adversely affect the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of shallow depth to bedrock and steep slopes, these soils are poorly suited as a site for conventional septic tank absorption fields. Use of alternative systems may be possible in areas of deeper and less sloping soil inclusions. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slopes of this unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Special designs may be necessary. Routing new roads around this map unit will help save construction and maintenance costs. Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.

941F—Rawsonville-Hogback complex, 35 to 60 percent slopes, very rocky, very bouldery

Setting

This unit is on bedrock controlled ridgetops and very steep side slopes of mountains in the Adirondack region at elevations exceeding 2,200 feet above sea level.

Map Unit Composition

Major Components

Rawsonville, very bouldery: 45 percent
Hogback, very bouldery: 30 percent

Inclusions

Rock outcrop: 8 percent
Knob Lock: 6 percent

Mundalite: 4 percent
Tunbridge: 2 percent
Unnamed: 5 percent

Included in mapping are areas of Knob Lock soils having a thick accumulation of organic matter above bedrock. Inclusions of very deep Mundalite soils occur along drainageways and between ridges. Small areas of Tunbridge soils are included where the subsoil has lower organic carbon.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Rawsonville, very bouldery: no
  Hogback, very bouldery: no
Hydrologic group:
  Rawsonville, very bouldery: C
  Hogback, very bouldery: D

Soil Properties and Qualities

Rawsonville, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate to high
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: moderately deep loamy till
Reaction (pH):
  0 to 4 inches: ultra acid to very strongly acid (1.8 to 5.0 in CaCl2)
  4 to 7 inches: ultra acid to very strongly acid (1.8 to 5.0 in CaCl2)
  7 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
  9 to 10 inches: extremely acid to strongly acid (3.5 to 5.5)
  10 to 15 inches: extremely acid to strongly acid (3.5 to 5.5)
  15 to 26 inches: extremely acid to strongly acid (3.5 to 5.5)
  26 to 27 inches: extremely acid to strongly acid (3.5 to 5.5)
  27 inches, bedrock
Permeability:
  0 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  4 to 7 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  7 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 10 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  10 to 15 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  15 to 26 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  26 to 27 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  27 inches, bedrock

Hogback, very bouldery
Drainage class: well drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches

Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: mountains
Parent material: shallow loamy till
Reaction (pH):
  0 to 1 inch: ultra acid to very strongly acid (1.8 to 5.0 in CaCl2)
  1 to 2 inches: extremely acid or very strongly acid (3.5 to 5.0 in CaCl2)
  2 to 3 inches: extremely acid to strongly acid (3.5 to 5.5)
  3 to 4 inches: extremely acid to strongly acid (3.5 to 5.5)
  4 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)
  18 inches, bedrock
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  2 to 3 inches: moderately rapid (2 to 6 inches/hour)
  3 to 4 inches: moderately rapid (2 to 6 inches/hour)
  4 to 18 inches: moderately rapid (2 to 6 inches/hour)
  18 inches, bedrock

Use and Management

Woodland

- Haul roads are limited by very steep slopes, depth to bedrock, and very bouldery conditions. Avoiding construction of haul roads on slopes exceeding 35 percent is recommended. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to shallow soils. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control are severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
Other sites should be considered for this use. The very steep slope and bedrock ledges seriously limit the safe use of machinery. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
Other sites should be considered for this use. Because of the very steep slope and shallow bedrock, conventional septic systems will likely fail and special designs will be required. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
The very steep slopes of this unit greatly impede trafficability of heavy machinery and significantly increase the difficulty and cost of building roads and streets. Blasting and special designs may be necessary. New roads should be routed around this map unit.

1018B—Colton sandy loam, 0 to 8 percent slopes

Setting

This unit is on nearly level to gently sloping glacial outwash plains and terraces in the Adirondack foothills.

Map Unit Composition

Major Components
Colton: 75 percent

Inclusions
Adams: 9 percent
Croghan: 5 percent
Monadnock: 5 percent
Becket: 2 percent
Unnamed: 4 percent

Included in mapping are areas of Adams and Croghan soils having fewer rock fragments than Colton soils. Small areas of Monadnock soils are included having a loamy subsoil and lacking stratification in the substratum. Inclusions of Becket soils have a dense till substratum.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 3s
Hydric soil rating:
Colton: no
Hydrologic group:
Colton: A

Soil Properties and Qualities

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none

Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Landform: outwash plains, kame terraces
Parent material: sandy and gravelly glaciofluvial deposits
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in $CaCl_2$)
- 1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
- 5 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
- 13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
- 21 to 32 inches: extremely acid to moderately acid (3.5 to 6.0)
- 32 to 80 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
- 3 to 4 inches: rapid or very rapid (6 to 100 inches/hour)
- 4 to 5 inches: rapid or very rapid (6 to 100 inches/hour)
- 5 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
- 13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
- 21 to 32 inches: rapid or very rapid (6 to 100 inches/hour)
- 32 to 80 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland

These soils are limited for growing cultivated crops because of droughtiness. Plants may suffer from moisture stress during drier summer months because of the very low available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These soils are well suited to pasture. Plants may suffer moisture stress during the drier summer months because of the very low available water capacity. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control may be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

There are no major soil limitations for this use.

Septic Tank Absorption Fields

The excessive rate of fluid movement through these soils limits the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute ground water in the area near the absorption field. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

There are no major soil limitations for this use.

1018C—Colton sandy loam, 8 to 15 percent slopes

Setting

This unit is on strongly sloping glacial outwash plains, kames and eskers in the Adirondack foothills.

Map Unit Composition

Major Components
Colton: 75 percent

Inclusions
Adams: 9 percent
Monadnock: 5 percent
Croghan: 3 percent
Becket: 2 percent
Naumburg: 2 percent
Unnamed: 4 percent

Included in mapping are areas of Adams and Croghan soils having fewer rock fragments than Colton soils. Small areas of Monadnock soils are formed in till and have a loamy subsoil. Inclusions of Becket soils have a dense till substratum. Also included are somewhat poorly drained Naumburg soils on toeslopes and near streams.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4s
Hydric soil rating:
  Colton: no
Hydrologic group:
  Colton: A

Soil Properties and Qualities

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Landform: outwash plains, kames, eskers, terraces
Parent material: sandy and gravelly glaciofluvial deposits

Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in $CaCl_2$)
- 1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
- 5 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
- 13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
- 21 to 32 inches: extremely acid to moderately acid (3.5 to 6.0)
- 32 to 80 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
- 3 to 4 inches: rapid or very rapid (6 to 100 inches/hour)
- 4 to 5 inches: rapid or very rapid (6 to 100 inches/hour)
- 5 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
- 13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
- 21 to 32 inches: rapid or very rapid (6 to 100 inches/hour)
- 32 to 80 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland

These strongly sloping soils are limited because they tend to be droughty and because of risk of soil erosion. Plants may suffer from moisture stress during drier summer months because of the very low available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These strongly sloping soils tend to be droughty. Plants may suffer moisture stress during the drier summer months because of the very low available water capacity. Erosion control is needed when pastures are renovated. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season, drought tolerant plant species is recommended.

Woodland

Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The strongly sloping areas of this unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The excessive rate of fluid movement through these soils limits the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute

ground water in the area near the absorption field. Because of strongly sloping areas, special design and installation techniques may be needed for distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

1018D—Colton sandy loam, 15 to 35 percent slopes

Setting

This unit is on moderately steep and steep glacial outwash, eskers and kames in the Adirondack foothills.

Map Unit Composition

Major Components
Colton: 80 percent

Inclusions
Adams: 9 percent
Monadnock: 5 percent
Becket: 2 percent
Croghan: 2 percent
Naumburg: 1 percent
Unnamed: 1 percent

Included in mapping are areas of Adams and Croghan soils having fewer rock fragments than Colton soils. Small areas of Monadnock soils are formed in till and have a loamy subsoil. Inclusions of Becket soils have a dense till substratum. Also included are somewhat poorly drained Naumburg soils on toeslopes and near streams.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Colton: no
Hydrologic group:
  Colton: A

Soil Properties and Qualities

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Landform: outwash plains, kame terraces
Parent material: sandy and gravelly glaciofluvial deposits

Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in $CaCl_2$)
- 1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
- 5 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
- 13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
- 21 to 32 inches: extremely acid to moderately acid (3.5 to 6.0)
- 32 to 80 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
- 3 to 4 inches: rapid or very rapid (6 to 100 inches/hour)
- 4 to 5 inches: rapid or very rapid (6 to 100 inches/hour)
- 5 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
- 13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
- 21 to 32 inches: rapid or very rapid (6 to 100 inches/hour)
- 32 to 80 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland

These soils are poorly suited to growing cultivated crops because of moderately steep slopes and droughtiness. The safe use of farm machinery is limited because of the slope. Plants may suffer from moisture stress during drier summer months because of very low available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These soils are limited for pasture because of erosion risk and droughtiness. Erosion control is needed when pastures are renovated. Plants may suffer moisture stress during the drier summer months because of very low available water capacity. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season, drought-tolerant plant species is recommended.

Woodland

- Haul roads are limited by moderately steep and steep slopes. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment

control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep and steep slope adversely influences the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of the moderately steep and steep slope, special design and installation techniques are needed for effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. The excessive rate of fluid movement through these soils limits the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute ground water in the area near the absorption field. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary.

1022A—Croghan fine sandy loam, 0 to 5 percent slopes

Setting

This unit is on nearly level to gently sloping outwash plains in the foothills of the Adirondack Mountains.

Map Unit Composition

Major Components
Croghan: 80 percent

Inclusions
Naumburg: 8 percent
Adams: 5 percent
Colton: 3 percent
Unnamed: 4 percent

Included with this soil in mapping are areas of somewhat poorly drained Naumburg soils on slightly concave positions and along drainageways. Inclusions of somewhat excessively drained Adams soils and gravelly, excessively drained Colton soils are on slightly higher or more convex positions.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 2w
Hydric soil rating:
Croghan: no
Hydrologic group:
Croghan: A/D

Soil Properties and Qualities

Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches

Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 36 inches
    Water table kind: apparent
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, outwash plains, terraces
Parent material: sandy glaciofluvial deposits
Reaction (pH):
    0 to 2 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
    2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
    3 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
    5 to 11 inches: very strongly acid to moderately acid (4.5 to 6.0)
    11 to 30 inches: very strongly acid to moderately acid (4.5 to 6.0)
    30 to 36 inches: very strongly acid to moderately acid (4.5 to 6.0)
    36 to 60 inches: very strongly acid to moderately acid (4.5 to 6.0)
Permeability:
    0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    2 to 3 inches: moderately rapid or rapid (2 to 20 inches/hour)
    3 to 5 inches: rapid or very rapid (6 to 100 inches/hour)
    5 to 11 inches: rapid or very rapid (6 to 100 inches/hour)
    11 to 30 inches: rapid or very rapid (6 to 100 inches/hour)
    30 to 36 inches: rapid or very rapid (6 to 100 inches/hour)
    36 to 60 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland

These soils are limited to growing cultivated crops because of low available water capacity in many areas and a seasonal high water table. Plants may suffer moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture. Subsurface drainage in low areas may extend the period of planting and harvesting of crops. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These soils are well suited to pasture. Plants may suffer moisture stress during the drier summer months because of the limited available water capacity.

The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season, drought-tolerant plant species is recommended.

Woodland

- Haul roads are limited on these soils by the seasonal high water table. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal saturation, logging when the ground is frozen, careful layout of

skid trails to minimize the number of passes, using tracked instead of rubber tired skidders and maintaining slash cover.

- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and excessive rates of water movement through parts of the soil substrata limit the absorption and proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute the ground water. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the roadbed may help reduce this limitation.

1023A—Naumburg loamy fine sand, 0 to 3 percent slopes

Setting

This unit is on nearly level outwash plains in the foothills of the Adirondack Mountains.

Map Unit Composition

Major Components

Naumburg: 80 percent

Inclusions

Croghan: 10 percent
Searsport: 3 percent
Adams: 2 percent
Colton: 1 percent
Unnamed: 4 percent

Included with this soil in mapping are areas of moderately well drained Croghan soils, somewhat excessively drained Adams soils, and gravelly, excessively drained Colton soils on slightly higher or more convex positions. Inclusions of very poorly drained Searsport soils are in depressions and along drainageways.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3w
Hydric soil rating:
Naumburg: no
Hydrologic group:
Naumburg: A/D

Soil Properties and Qualities

Naumburg
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 10 to 18 inches
Water table kind: apparent
Flooding: none
Available water capacity: low to moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: outwash plains
Parent material: sandy glaciofluvial deposits
Reaction (pH):
0 to 1 inch: ultra acid to very strongly acid (1.8 to 5.0 in CaCl2)
1 to 5 inches: extremely acid to strongly acid (3.5 to 5.5)
5 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
8 to 10 inches: extremely acid to strongly acid (3.5 to 5.5)
10 to 16 inches: extremely acid to strongly acid (3.5 to 5.5)
16 to 19 inches: extremely acid to strongly acid (3.5 to 5.5)
19 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 5 inches: rapid (6 to 20 inches/hour)
5 to 8 inches: rapid (6 to 20 inches/hour)
8 to 10 inches: rapid (6 to 20 inches/hour)
10 to 16 inches: rapid (6 to 20 inches/hour)
16 to 19 inches: rapid (6 to 20 inches/hour)
19 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland
These soils are limited to growing cultivated crops because of a seasonal high water table and low available water capacity in many areas. Systematic subsurface drainage may extend the period of planting and harvesting of crops. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
These soils are well suited to pasture. Excess water should be removed or diverted away from this unit. Grass or legume species that are adapted to wet soil conditions should be planted. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are limited on these soils by the seasonal high water table. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint and using tracked skidders.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

Other sites should be considered for this use. The seasonal high water table greatly limits the absorption and proper treatment of effluent from conventional septic systems. Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of effluent from septic systems. Poorly treated effluent may pollute the ground water. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

1024A—Searsport mucky loamy sand, 0 to 3 percent slopes

Setting

This unit is in depressions or on nearly level outwash plains in the foothills of the Adirondack Mountains.

Map Unit Composition

Major Components
Searsport: 75 percent

Inclusions
Naumburg: 9 percent
Burnt Vly: 7 percent
Wonsqueak: 3 percent
Croghan: 2 percent
Unnamed: 4 percent

Included with this soil in mapping are areas of somewhat poorly drained and poorly drained Naumburg soils and moderately well drained Croghan soils on slightly higher positions. Small areas of Burnt Vly and Wonsqueak soils are included where the organic soil surface is thicker than 16 inches thick.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
  Searsport: yes
Hydrologic group:
  Searsport: A/D

Soil Properties and Qualities

Searsport
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
  Water table kind: apparent
  Ponding: frequent
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: depressions
Parent material: deep sandy outwash
Reaction (pH):
  0 to 1 inch: extremely acid to moderately acid (3.5 to 6.0 in CaCl2)
  1 to 9 inches: extremely acid to moderately acid (3.5 to 6.0 in CaCl2)
  9 to 17 inches: very strongly acid to slightly acid (4.5 to 6.5)
  17 to 55 inches: very strongly acid to slightly acid (4.5 to 6.5)
  55 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 9 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  9 to 17 inches: rapid or very rapid (6 to 100 inches/hour)
  17 to 55 inches: rapid or very rapid (6 to 100 inches/hour)
  55 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland

These soils are not suited to growing cultivated crops due to ponding and the seasonal high water table.

Pasture

These soils are not suited to pasture due to ponding and the seasonal high water table.

Woodland

- Haul roads are limited by the seasonal high water table. Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads due to wetness. Consult the Water Features table for months of seasonal saturation.
- Areas of these soils that are subject to ponding should be avoided when locating log landings.
- The rutting hazard can be minimized by limiting timber harvesting operations to winter months when the ground is frozen.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to ponding. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

Other sites should be considered for this use. Because of the potential for ponding, these soils are very limited as a site for dwellings with basements. The period when excavations can be made may also be restricted and intensive construction site development and building maintenance may be needed.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of ponding, these soils are not suitable for conventional septic tank absorption fields.

Local Roads and Streets

These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

1025A—Adams loamy sand, 0 to 3 percent slopes

Setting

This unit is on nearly level outwash plains and glacial lake plains in the Adirondack foothills.

Map Unit Composition

Major Components
Adams: 85 percent

Inclusions
Allagash: 5 percent
Colton: 5 percent
Croghan: 3 percent
Monadnock: 1 percent
Naumburg: 1 percent

Included in mapping are areas of Allagash soils having a loamy subsoil mantle over stratified sand. Inclusions of gravelly Colton soils occur, especially near streams. Small areas of moderately well drained Croghan and somewhat poorly drained Naumburg soils are included where there is a seasonal high water table. Monadnock soils are included mainly on fringes of the unit where there is loamy glacial till overlying non-stratified sandy deposits.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3s
Hydric soil rating:
  Adams: no
Hydrologic group:
  Adams: A

Soil Properties and Qualities

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, kame terraces, outwash plains; lake plains
Parent material: sandy glaciofluvial deposits from predominantly crystalline rock and sandstone
Reaction (pH):
  0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
  5 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
  9 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
  14 to 17 inches: very strongly acid to moderately acid (4.5 to 6.0)
  17 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
  32 to 58 inches: very strongly acid to slightly acid (4.5 to 6.5)
  58 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  2 to 3 inches: rapid (6 to 20 inches/hour)
  3 to 5 inches: rapid (6 to 20 inches/hour)
  5 to 9 inches: rapid (6 to 20 inches/hour)

9 to 14 inches: rapid (6 to 20 inches/hour)
14 to 17 inches: rapid (6 to 20 inches/hour)
17 to 32 inches: very rapid (20 to 100 inches/hour)
32 to 58 inches: very rapid (20 to 100 inches/hour)
58 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland

These soils are limited to growing cultivated crops because of low available water capacity in many areas. Plants may suffer from moisture stress during drier summer months. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These soils are well suited to pasture. Plants may suffer moisture stress during the drier summer months because of limited available water capacity. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season and drought-tolerant plant species is recommended.

Woodland

There are no major soil limitations for this use.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

There are no major soil limitations for this use.

Septic Tank Absorption Fields

The excessive rate of fluid movement through these soils limits the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute ground water in the area near the absorption field. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

There are no major soil limitations for this use.

1025B—Adams loamy sand, 3 to 8 percent slopes

Setting

This unit is on gently sloping outwash plains, deltas and terraces in the Adirondack foothills.

Map Unit Composition

Major Components

Adams: 85 percent

Inclusions

Allagash: 5 percent

Colton: 5 percent
Monadnock: 3 percent
Croghan: 2 percent

Included in mapping are areas of Allagash soils having a loamy subsoil mantle over stratified sand. Inclusions of gravelly Colton soils occur, especially near streams. Monadnock soils are included mainly on fringes of the unit where there is loamy glacial till overlying non-stratified sandy deposits. Small areas of moderately well drained Croghan soils are included where there is a seasonal high water table.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 3s
Hydric soil rating:
 Adams: no
Hydrologic group:
 Adams: A

Soil Properties and Qualities

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, kame terraces, outwash plains
Parent material: sandy glaciofluvial deposits from predominantly crystalline rock and sandstone
Reaction (pH):
 0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
 3 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
 5 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
 9 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
 14 to 17 inches: very strongly acid to moderately acid (4.5 to 6.0)
 17 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
 32 to 58 inches: very strongly acid to slightly acid (4.5 to 6.5)
 58 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
 0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 2 to 3 inches: rapid (6 to 20 inches/hour)
 3 to 5 inches: rapid (6 to 20 inches/hour)
 5 to 9 inches: rapid (6 to 20 inches/hour)
 9 to 14 inches: rapid (6 to 20 inches/hour)
 14 to 17 inches: rapid (6 to 20 inches/hour)
 17 to 32 inches: very rapid (20 to 100 inches/hour)
 32 to 58 inches: very rapid (20 to 100 inches/hour)
 58 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland

These soils are limited to growing cultivated crops because of low available water capacity in many areas. Plants may suffer from moisture stress during drier summer months. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These soils are well suited to pasture. Plants may suffer moisture stress during the drier summer months because of the limited available water capacity. Erosion control may be needed when pastures are renovated. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

There are no major soil limitations for this use.

Development

Erosion and sediment control may be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

There are no major soil limitations for this use.

Septic Tank Absorption Fields

The excessive rate of fluid movement through these soils limits the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute ground water in the area near the absorption field. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

There are no major soil limitations for this use.

1025C—Adams loamy sand, 8 to 15 percent slopes

Setting

This unit is on strongly sloping outwash deltas, terraces, kames and eskers in the Adirondack foothills.

Map Unit Composition

Major Components

Adams: 85 percent

Inclusions

Colton: 5 percent
Monadnock: 5 percent
Allagash: 2 percent

Henniker: 2 percent
Croghan: 1 percent

Included in mapping are areas of gravelly Colton soils, especially near streams. Inclusions of Monadnock and Henniker soils are included mainly on fringes of the unit where there is loamy glacial till over non-stratified sandy till deposits. Allagash soils are included having a loamy subsoil mantle over stratified sand. Small areas of moderately well drained Croghan soils are included where there is a seasonal high water table.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4s
Hydric soil rating:
    Adams: no
Hydrologic group:
    Adams: A

Soil Properties and Qualities

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, kame terraces, outwash plains; eskers
Parent material: sandy glaciofluvial deposits from predominantly crystalline rock and sandstone
Reaction (pH):
    0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in $CaCl_2$)
    2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
    3 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
    5 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
    9 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
    14 to 17 inches: very strongly acid to moderately acid (4.5 to 6.0)
    17 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
    32 to 58 inches: very strongly acid to slightly acid (4.5 to 6.5)
    58 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
    0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    2 to 3 inches: rapid (6 to 20 inches/hour)
    3 to 5 inches: rapid (6 to 20 inches/hour)
    5 to 9 inches: rapid (6 to 20 inches/hour)
    9 to 14 inches: rapid (6 to 20 inches/hour)
    14 to 17 inches: rapid (6 to 20 inches/hour)
    17 to 32 inches: very rapid (20 to 100 inches/hour)
    32 to 58 inches: very rapid (20 to 100 inches/hour)
    58 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
These soils are limited for growing cultivated crops because of strongly sloping conditions and limited available water capacity. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss

by erosion. Plants may suffer from moisture stress during drier summer months. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These soils are limited for pasture because of droughtiness and soil erosion potential. Plants may suffer moisture stress during the drier summer months because of the limited available water capacity. Erosion control is needed when pastures are renovated. Avoiding overgrazing will reduce the potential for soil erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season and drought-tolerant plant species is recommended.

Woodland

There are no major soil limitations for this use.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Strongly sloping areas of this unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The excessive rate of fluid movement through these soils limits the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute ground water in the area near the absorption field. Because of strongly sloping areas, special design and installation techniques may be needed for distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The strongly sloping areas of this unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

1025E—Adams loamy sand, 15 to 35 percent slopes

Setting

This unit is on moderately steep and steep outwash terraces, kames, and eskers in the Adirondack foothills.

Map Unit Composition

Major Components
Adams: 80 percent

Inclusions
Monadnock: 8 percent
Colton: 5 percent
Allagash: 1 percent
Croghan: 1 percent
Unnamed: 5 percent

Included in mapping are areas of Monadnock soils on fringes of the unit where there is loamy glacial till overlying non-stratified sandy deposits. Gravelly Colton soils are included near streams. Allagash soils are included in areas having a loamy subsoil mantle over stratified sand. Small areas of moderately well drained Croghan soils are included in low areas near streams and depressions.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Adams: no
Hydrologic group:
  Adams: A

Soil Properties and Qualities

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, kame terraces, outwash plains; eskers
Parent material: sandy glaciofluvial deposits from predominantly crystalline rock and sandstone
Reaction (pH):
  0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
  5 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
  9 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
  14 to 17 inches: very strongly acid to moderately acid (4.5 to 6.0)
  17 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
  32 to 58 inches: very strongly acid to slightly acid (4.5 to 6.5)
  58 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  2 to 3 inches: rapid (6 to 20 inches/hour)
  3 to 5 inches: rapid (6 to 20 inches/hour)
  5 to 9 inches: rapid (6 to 20 inches/hour)
  9 to 14 inches: rapid (6 to 20 inches/hour)
  14 to 17 inches: rapid (6 to 20 inches/hour)
  17 to 32 inches: very rapid (20 to 100 inches/hour)
  32 to 58 inches: very rapid (20 to 100 inches/hour)
  58 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
These soils are poorly suited to growing cultivated crops because of moderately steep and steep slopes and potential soil erosion. The safe use of farm machinery is limited because of steep slope. Using a system of conservation tillage and planting

cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Properly designed erosion-control practices are needed on these steeper slopes. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These soils are limited for pasture because of moderately steep and steep slopes that inhibit most farm equipment used for renovating pasture. Avoiding overgrazing will reduce the potential for soil erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season and drought-tolerant plant species is recommended.

Woodland

- Haul roads are limited by moderately steep and steep slopes. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Applying gravel base material during construction of haul roads will help overcome limitations due to sandy surface layers.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep and steep slope adversely affects the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of the moderately steep and steep slope, special design and installation techniques are needed for effluent distribution lines. The excessive rate of fluid movement through these soils limits the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute ground water in the area near the absorption field. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slopes of this unit impede trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary. New roads should be routed around this unit where possible, to save construction and maintenance costs.

1025F—Adams loamy sand, 35 to 70 percent slopes

Setting

This unit is on very steep outwash terraces and eskers in the Adirondack foothills.

Map Unit Composition

Major Components
Adams: 80 percent

Inclusions
Monadnock: 8 percent
Colton: 5 percent
Allagash: 1 percent
Croghan: 1 percent
Unnamed: 5 percent

Included in mapping are areas of Monadnock soils on fringes of the unit where there is loamy glacial till overlying non-stratified sandy deposits. Gravelly Colton soils are included near streams. Allagash soils are included having a loamy subsoil mantle over stratified sand. Small areas of moderately well drained Croghan soils are included in low areas near streams and depressions.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Adams: no
Hydrologic group:
  Adams: A

Soil Properties and Qualities

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, kames; terraces, outwash plains; eskers
Parent material: sandy glaciofluvial deposits from predominantly crystalline rock and sandstone
Reaction (pH):
  0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
  5 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
  9 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
  14 to 17 inches: very strongly acid to moderately acid (4.5 to 6.0)
  17 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
  32 to 58 inches: very strongly acid to slightly acid (4.5 to 6.5)
  58 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  2 to 3 inches: rapid (6 to 20 inches/hour)
  3 to 5 inches: rapid (6 to 20 inches/hour)
  5 to 9 inches: rapid (6 to 20 inches/hour)
  9 to 14 inches: rapid (6 to 20 inches/hour)

14 to 17 inches: rapid (6 to 20 inches/hour)
17 to 32 inches: very rapid (20 to 100 inches/hour)
32 to 58 inches: very rapid (20 to 100 inches/hour)
58 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland
These soils are not suited to growing cultivated crops because of very steep slopes.

Pasture
These soils are not suited to pasture because of very steep slopes.

Woodland
Haul roads are limited by very steep slopes. Avoiding construction of haul roads on slopes exceeding 35 percent is recommended. Applying gravel base material during construction of haul roads will help overcome limitations due to sandy surface layers.

Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.

Development
Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements
Other sites should be considered for this use. The very steep slopes adversely impact the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields
Other sites should be considered for this use. Because of the very steep slope and excessive rate of fluid movement through these soils, conventional septic systems will not work properly. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Poorly treated effluent may pollute ground water in the area near the absorption field. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets
The very steep slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. New roads should be routed around this unit to save construction and maintenance costs.

1027B—Allagash fine sandy loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping glacial outwash plains and terraces in the Adirondack foothills.

Map Unit Composition

Major Components
Allagash: 75 percent

Inclusions
Adams: 8 percent
Colton: 5 percent
Monadnock: 5 percent
Berkshire: 4 percent
Croghan: 3 percent

Included in mapping are areas of Adams and Colton soils that lack a loamy subsoil. Monadnock and Berkshire soils are included in areas of loamy till deposits. Small areas of moderately well drained Croghan soils are included where there is a seasonal high water table.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
  Allagash: no
Hydrologic group:
  Allagash: B

Soil Properties and Qualities

Allagash
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Landform: outwash plains, terraces
Parent material: loamy over sandy and gravelly glaciofluvial deposits derived mainly from crystalline rock
Reaction (pH):
  0 to 1 inch: extremely acid to moderately acid (3.5 to 6.0 in CaCl2)
  1 to 3 inches: very strongly acid to slightly acid (4.5 to 6.5)
  3 to 5 inches: very strongly acid to slightly acid (4.5 to 6.5)
  5 to 19 inches: very strongly acid to slightly acid (4.5 to 6.5)
  19 to 35 inches: very strongly acid to slightly acid (4.5 to 6.5)
  35 to 44 inches: very strongly acid to slightly acid (4.5 to 6.5)
  44 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 3 inches: moderate (0.6 to 2 inches/hour)
  3 to 5 inches: moderate (0.6 to 2 inches/hour)
  5 to 19 inches: moderate (0.6 to 2 inches/hour)
  19 to 35 inches: moderate (0.6 to 2 inches/hour)
  35 to 44 inches: rapid (6 to 20 inches/hour)
  44 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland
These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Using a system of conservation tillage

and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These soils are well suited to pasture. Erosion control may be needed when pastures are renovated. Avoiding overgrazing will reduce the potential for soil erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

There are no major soil limitations for this use.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

There are no major soil limitations for this use.

Septic Tank Absorption Fields

Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of effluent from conventional septic systems. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

1027C—Allagash fine sandy loam, 8 to 15 percent slopes

Setting

This unit is on strongly sloping glacial outwash plains and terraces in the Adirondack foothills.

Map Unit Composition

Major Components

Allagash: 80 percent

Inclusions

Adams: 5 percent
Berkshire: 5 percent
Colton: 5 percent
Monadnock: 5 percent

Included in mapping are areas of Adams and Colton soils that lack a loamy subsoil. Berkshire and Monadnock soils are included in areas of loamy till deposits.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
    Allagash: no
Hydrologic group:
    Allagash: B

Soil Properties and Qualities

Allagash
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Landform: outwash plains, terraces
Parent material: loamy over sandy and gravelly glaciofluvial deposits derived mainly from crystalline rock
Reaction (pH):
    0 to 1 inch: extremely acid to moderately acid (3.5 to 6.0 in CaCl2)
    1 to 3 inches: very strongly acid to slightly acid (4.5 to 6.5)
    3 to 5 inches: very strongly acid to slightly acid (4.5 to 6.5)
    5 to 19 inches: very strongly acid to slightly acid (4.5 to 6.5)
    19 to 35 inches: very strongly acid to slightly acid (4.5 to 6.5)
    35 to 44 inches: very strongly acid to slightly acid (4.5 to 6.5)
    44 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
    0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    1 to 3 inches: moderate (0.6 to 2 inches/hour)
    3 to 5 inches: moderate (0.6 to 2 inches/hour)
    5 to 19 inches: moderate (0.6 to 2 inches/hour)
    19 to 35 inches: moderate (0.6 to 2 inches/hour)
    35 to 44 inches: rapid (6 to 20 inches/hour)
    44 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland
These soils are limited for growing cultivated crops because of strongly sloping area and risk of soil erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
These soils are well suited to pasture. Erosion control is needed when pastures are renovated. Avoiding overgrazing will reduce the potential for soil erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
There are no major soil limitations for this use.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The strongly sloping areas of this unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of effluent from conventional septic systems. Installing distribution lines well above the depth of the coarse-textured substrata can help provide filter capacity. Because of strongly sloping areas, special design and installation techniques may be needed for distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. The strongly sloping areas of this unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

1027E—Allagash fine sandy loam, 15 to 35 percent slopes

Setting

This unit is on moderately steep and steep side slopes of glacial outwash terraces in the Adirondack foothills.

Map Unit Composition

Major Components
Allagash: 80 percent

Inclusions
Adams: 5 percent
Berkshire: 5 percent
Colton: 5 percent
Monadnock: 5 percent

Included in mapping are areas of Adams and Colton soils that lack a loamy subsoil. Berkshire and Monadnock soils are included in areas of loamy till deposits.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6e
Hydric soil rating:
    Allagash: no
Hydrologic group:
    Allagash: B

Soil Properties and Qualities

Allagash
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: high
Potential frost action: moderate
Shrink-swell potential: low
Landform: outwash plains, terraces
Parent material: loamy over sandy and gravelly glaciofluvial deposits derived mainly from crystalline rock
Reaction (pH):
0 to 1 inch: extremely acid to moderately acid (3.5 to 6.0 in CaCl2)
1 to 3 inches: very strongly acid to slightly acid (4.5 to 6.5)
3 to 5 inches: very strongly acid to slightly acid (4.5 to 6.5)
5 to 19 inches: very strongly acid to slightly acid (4.5 to 6.5)
19 to 35 inches: very strongly acid to slightly acid (4.5 to 6.5)
35 to 44 inches: very strongly acid to slightly acid (4.5 to 6.5)
44 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: moderate (0.6 to 2 inches/hour)
3 to 5 inches: moderate (0.6 to 2 inches/hour)
5 to 19 inches: moderate (0.6 to 2 inches/hour)
19 to 35 inches: moderate (0.6 to 2 inches/hour)
35 to 44 inches: rapid (6 to 20 inches/hour)
44 to 72 inches: rapid or very rapid (6 to 100 inches/hour)

Use and Management

Cropland
This unit is poorly suited to growing cultivated crops because of moderately steep and steep slopes and severe erosion potential. Properly designed erosion-control practices are needed on these steeper slopes. The safe use of farm machinery is limited because of the slope. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
These soils are limited for pasture because of moderately steep and steep slopes that inhibit most farm equipment used for renovating pasture. Avoiding overgrazing will reduce the potential for soil erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season and drought-tolerant plant species is recommended.

Woodland
- Haul roads are limited by moderately steep and steep slopes. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining

properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep and steep slope adversely affects the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of the moderately steep and steep slope, special design and installation techniques are needed for effluent distribution lines. The excessive rate of fluid movement through the substratum of these soils limits the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute ground water in the area near the absorption field. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slopes of this unit impede trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary. New roads should be routed around this unit where possible, to save construction and maintenance costs.

1070B—Berkshire loam, 3 to 8 percent slopes, very bouldery

Setting

This map unit is on gently sloping till plains in the foothills of the Adirondack Mountains.

Map Unit Composition

Major Components

Berkshire, very bouldery: 75 percent

Inclusions

Skerry: 8 percent
Becket: 5 percent
Tunbridge: 2 percent
Unnamed: 10 percent

Included in mapping are areas of Skerry and Becket soils having dense sandy till substrata. Small areas of moderately deep to bedrock Tunbridge soils are included on knolls.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Berkshire, very bouldery: no
Hydrologic group:
    Berkshire, very bouldery: A

Soil Properties and Qualities

Berkshire, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: moraines, valley sides
Parent material: loamy till derived mainly from schist, granite and gneiss
Reaction (pH):
    0 to 2 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
    2 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
    5 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
    6 to 9 inches: extremely acid to moderately acid (3.5 to 6.0)
    9 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
    21 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
    30 to 32 inches: extremely acid to moderately acid (3.5 to 6.0)
    32 to 74 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
    0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    2 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    5 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    6 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    9 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    21 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    30 to 32 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    32 to 74 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

Use and Management

Cropland
These soils are not suited to growing cultivated crops because of the very bouldery surface conditions. In areas where large surface stones are removed for cultivation, grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
These soils are limited for pasture because of very bouldery surface conditions. Erosion control is needed when pastures are renovated. Large rock fragments on the

surface may restrict the operation of farm machinery during pasture renovation. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are limited by very bouldery surface conditions. Employing larger, more powerful machinery during construction and locating haul roads and log landings in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

There are no major soil limitations for this use.

Septic Tank Absorption Fields

Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

1070C—Berkshire loam, 8 to 15 percent slopes, very bouldery

Setting

This map unit is on strongly sloping till plains in the foothills of the Adirondack Mountains.

Map Unit Composition

Major Components

Berkshire, very bouldery: 70 percent

Inclusions

Skerry: 10 percent
Becket: 5 percent
Tunbridge: 5 percent
Unnamed: 10 percent

Included in mapping are areas of Skerry and Becket soils having dense sandy till substrata. Small areas of moderately deep to bedrock Tunbridge soils are included on nose slopes and ridges.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s

Hydric soil rating:
  Berkshire, very bouldery: no
Hydrologic group:
  Berkshire, very bouldery: A

Soil Properties and Qualities

Berkshire, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: moraines, valley sides
Parent material: loamy till derived mainly from schist, granite and gneiss
Reaction (pH):
  0 to 2 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  2 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
  6 to 9 inches: extremely acid to moderately acid (3.5 to 6.0)
  9 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
  21 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
  30 to 32 inches: extremely acid to moderately acid (3.5 to 6.0)
  32 to 74 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
  0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  2 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  5 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  6 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  9 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  21 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  30 to 32 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  32 to 74 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

Use and Management

Cropland

These soils are limited for growing cultivated crops because of very bouldery surface conditions and strongly sloping areas. Large rock fragments on the surface generally make tillage impractical.

Pasture

These soils are limited for pasture because of very bouldery surface conditions. Erosion control is needed when pastures are renovated. Avoiding overgrazing will reduce the potential for soil erosion. Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are limited by very bouldery surface conditions. Employing larger, more powerful machinery during construction and locating haul roads and log landings

in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The strongly sloping areas of this unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

Surface boulders may impede excavation, system installation, and traffic of heavy machinery Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. The strongly sloping areas of this unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

1070E—Berkshire loam, 15 to 35 percent slopes, very bouldery

Setting

This map unit is on moderately steep and steep till plains in the foothills of the Adirondack Mountains.

Map Unit Composition

Major Components

Berkshire, very bouldery: 70 percent

Inclusions

Skerry: 10 percent
Becket: 5 percent
Tunbridge: 5 percent
Unnamed: 10 percent

Included in mapping are areas of Skerry and Becket soils having dense sandy till substrata. Small areas of moderately deep to bedrock Tunbridge soils are included on nose slopes and ridges.

Interpretive Groups

Farmland class: not prime farmland

Land capability classification: 7s
Hydric soil rating:
Berkshire, very bouldery: no
Hydrologic group:
Berkshire, very bouldery: A

Soil Properties and Qualities

Berkshire, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: moraines, valley sides
Parent material: loamy till derived mainly from schist, granite and gneiss
Reaction (pH):
0 to 2 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
2 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
6 to 9 inches: extremely acid to moderately acid (3.5 to 6.0)
9 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
21 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
30 to 32 inches: extremely acid to moderately acid (3.5 to 6.0)
32 to 74 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
6 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
21 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
30 to 32 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
32 to 74 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

Use and Management

Cropland

Large rock fragments on the surface and moderately steep and steep slopes generally make tillage impractical.

Pasture

These soils are poorly suited for pasture because of very bouldery surface conditions and moderately steep and steep slopes. Erosion control is needed if pastures are renovated. Avoiding overgrazing will reduce the potential for soil erosion. Large rock fragments on the surface and steep slopes restrict the safe operation of some farm machinery during pasture renovation. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are limited by moderately steep and steep slopes and very bouldery surface conditions. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Employing larger, more powerful machinery during construction and locating haul roads and log landings in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep and steep slope adversely affects the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of moderately steep and steep slopes, conventional septic systems will fail or work poorly. Special design and installation techniques are needed for distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and slopes of this unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Special designs may be necessary. Routing new roads around this unit can save construction and maintenance costs. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

1075B—Potsdam loam, 3 to 8 percent slopes, very bouldery

Setting

This unit is on gently sloping till plains in the Adirondack Mountain foothills.It has a firm, dense substratum.

Map Unit Composition

Major Components
Potsdam, very bouldery: 80 percent

Inclusions
Crary: 8 percent
Monadnock: 3 percent
Tunbridge: 3 percent
Adams: 2 percent
Pillsbury: 2 percent
Colton: 1 percent
Unnamed: 1 percent

Included in mapping are areas of moderately well drained Crary soils and somewhat poorly drained Pillsbury soils on lower or slightly more concave positions. Inclusions of Monadnock soil lack dense till substrata within 40 inches deep. Tunbridge soils are included in areas that are moderately deep to bedrock. Small areas of Adams and Colton soils occur on outwash terraces and other sandy spots.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Potsdam, very bouldery: no
Hydrologic group:
    Potsdam, very bouldery: C

Soil Properties and Qualities

Potsdam, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: low hills
Parent material: silty eolian deposits over firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
    0 to 2 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
    2 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
    8 to 10 inches: extremely acid to moderately acid (3.5 to 6.0)
    10 to 13 inches: very strongly acid to moderately acid (4.5 to 6.0)
    13 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
    19 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
    25 to 28 inches: very strongly acid to neutral (4.5 to 7.3)
    28 to 72 inches: strongly acid to slightly alkaline (5.1 to 7.8)
Permeability:
    0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    2 to 8 inches: moderate (0.6 to 2 inches/hour)
    8 to 10 inches: moderate (0.6 to 2 inches/hour)

10 to 13 inches: moderate (0.6 to 2 inches/hour)
13 to 19 inches: moderate (0.6 to 2 inches/hour)
19 to 25 inches: moderate (0.6 to 2 inches/hour)
25 to 28 inches: moderate (0.6 to 2 inches/hour)
28 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland

Large rock fragments on the surface generally make tillage impractical. In areas where large surface stones are removed for cultivation, grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation. Erosion control may be needed when pastures are renovated. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

There are no major soil limitations for this use.

Septic Tank Absorption Fields

The moderately deep dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of effluent distribution lines. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

1075C—Potsdam loam, 8 to 15 percent slopes, very bouldery

Setting

This unit is on strongly sloping till plains in the Adirondack Mountain foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components
Potsdam, very bouldery: 80 percent

Inclusions
Crary: 8 percent
Monadnock: 3 percent
Tunbridge: 3 percent
Adams: 2 percent
Pillsbury: 2 percent
Colton: 1 percent
Unnamed: 1 percent

Included in mapping are areas of moderately well drained Crary soils and somewhat poorly drained Pillsbury soils on lower or slightly more concave positions. Inclusions of Monadnock soil lack dense till substrata within 40 inches deep. Tunbridge soils are included in areas that are moderately deep to bedrock. Small areas of Adams and Colton soils occur on outwash terraces and other sandy spots.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Potsdam, very bouldery: no
Hydrologic group:
  Potsdam, very bouldery: C

Soil Properties and Qualities

Potsdam, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: low hills
Parent material: silty eolian deposits over firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
  0 to 2 inches: ultra acid to strongly acid (1.8 to 5.5 in $CaCl_2$)
  2 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
  8 to 10 inches: extremely acid to moderately acid (3.5 to 6.0)
  10 to 13 inches: very strongly acid to moderately acid (4.5 to 6.0)

13 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
19 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
25 to 28 inches: very strongly acid to neutral (4.5 to 7.3)
28 to 72 inches: strongly acid to slightly alkaline (5.1 to 7.8)

Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 10 inches: moderate (0.6 to 2 inches/hour)
10 to 13 inches: moderate (0.6 to 2 inches/hour)
13 to 19 inches: moderate (0.6 to 2 inches/hour)
19 to 25 inches: moderate (0.6 to 2 inches/hour)
25 to 28 inches: moderate (0.6 to 2 inches/hour)
28 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland

These soils are not suited for growing cultivated crops because of very bouldery surface conditions and strongly sloping conditions. Large rock fragments on the surface generally make tillage impractical. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation. Erosion control is needed when pastures are renovated. Avoiding overgrazing will reduce the potential for soil erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Strongly sloping areas influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The moderately deep dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of effluent distribution lines. Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are

removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. The strongly sloping areas of this unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

1078B—Crary loam, 3 to 8 percent slopes, very bouldery

Setting

This unit is on footslopes and gently sloping areas between hills in the Adirondack Mountains. It has a firm, dense substratum.

Map Unit Composition

Major Components

Crary, very bouldery: 80 percent

Inclusions

Pillsbury: 8 percent
Adirondack: 5 percent
Skerry: 4 percent
Becket: 3 percent

Included in mapping are areas of somewhat poorly drained Pillsbury and Adirondack soils on slightly concave positions and near drainageways. Also included are Skerry and Becket soils in areas having less silt and very fine sand in the subsoil.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Crary, very bouldery: no
Hydrologic group:
    Crary, very bouldery: C/D

Soil Properties and Qualities

Crary, very bouldery

Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 18 to 36 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface fragment cover: very bouldery

Landform: low hills
Parent material: silty eolian deposits over firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
0 to 4 inches: very strongly acid to moderately acid (4.5 to 6.0)
4 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
8 to 16 inches: very strongly acid to moderately acid (4.5 to 6.0)
16 to 21 inches: very strongly acid to moderately acid (4.5 to 6.0)
21 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
25 to 72 inches: strongly acid to slightly alkaline (5.1 to 7.8)
Permeability:
0 to 4 inches: moderate (0.6 to 2 inches/hour)
4 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 16 inches: moderate (0.6 to 2 inches/hour)
16 to 21 inches: moderate (0.6 to 2 inches/hour)
21 to 25 inches: moderate (0.6 to 2 inches/hour)
25 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland

These soils are not suited for growing cultivated crops because of very bouldery surface conditions. Large rock fragments on the surface generally make tillage impractical. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation. Erosion control may be needed when pastures are renovated. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are limited by the seasonal high water table and very bouldery surface conditions. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.

- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through these soils may limit the absorption and proper treatment of effluent from conventional septic systems. The moderately deep dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of distribution lines. Surface boulders may impede excavation, system installation and traffic of heavy machinery. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

1080B—Becket sandy loam, 3 to 8 percent slopes, very bouldery

Setting

This unit is on gently sloping till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components

Becket, very bouldery: 80 percent

Inclusions

Skerry: 9 percent
Adirondack: 5 percent
Monadnock: 3 percent

Adams: 2 percent
Colton: 1 percent

Included in mapping are areas of moderately well drained Skerry and somewhat poorly drained Adirondack soils on footslopes, slightly concave positions, and along drainageways. Monadnock soils are included in areas where the dense substratum is deeper than 40 inches. Small areas of Adams and Colton soils are included as deposits of outwash sand and gravel.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Becket, very bouldery: no
Hydrologic group:
  Becket, very bouldery: C

Soil Properties and Qualities

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
  0 to 1 inch: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
  1 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
  3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
  5 to 8 inches: extremely acid to slightly acid (3.5 to 6.5)
  8 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
  15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
  26 to 38 inches: very strongly acid to neutral (4.5 to 7.3)
  38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  3 to 5 inches: moderate (0.6 to 2 inches/hour)
  5 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 15 inches: moderate (0.6 to 2 inches/hour)
  15 to 26 inches: moderate (0.6 to 2 inches/hour)
  26 to 38 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
  38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland

These soils are not suited for growing cultivated crops because of very bouldery surface conditions. Large rock fragments on the surface generally make tillage impractical. In areas where large surface stones are removed for cultivation, grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation. Erosion control may be needed when pastures are renovated. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads may be affected by seepage water flowing above the dense substratum of these soils during early spring each year. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table that is perched on the dense substratum may cause seepage into basements during the spring. Structures may need special design to avoid damage from wetness.

Septic Tank Absorption Fields

The seasonal high water table in some areas of these soils during spring may limit the absorption and proper treatment of effluent from conventional septic systems. These moderately deep soils over a dense material tend to have limited filtering capacity and the dense substratum may impede the proper installation of effluent

distribution lines. The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of effluent from conventional septic systems. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

1080C—Becket sandy loam, 8 to 15 percent slopes, very bouldery

Setting

This unit is on strongly sloping till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components

Becket, very bouldery: 80 percent

Inclusions

Skerry: 8 percent
Adirondack: 3 percent
Monadnock: 3 percent
Adams: 2 percent
Colton: 1 percent
Tunbridge: 1 percent
Unnamed: 2 percent

Included in mapping are areas of moderately well drained Skerry and somewhat poorly drained Adirondack soils on footslopes, slightly concave positions and along drainageways. Monadnock soils are included in areas where the dense substratum is deeper than 40 inches. Small areas of Adams and Colton soils are included as deposits of outwash sand and gravel. Also, moderately deep Tunbridge soils are included on nose slopes and ridgetops controlled by bedrock.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Becket, very bouldery: no
Hydrologic group:
  Becket, very bouldery: C

Soil Properties and Qualities

Becket, very bouldery

Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
  Water table kind: perched

Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
- 0 to 1 inch: ultra acid to moderately acid (1.8 to 6.0 in $CaCl_2$)
- 1 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in $CaCl_2$)
- 3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
- 5 to 8 inches: extremely acid to slightly acid (3.5 to 6.5)
- 8 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
- 15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
- 26 to 38 inches: very strongly acid to neutral (4.5 to 7.3)
- 38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 3 to 5 inches: moderate (0.6 to 2 inches/hour)
- 5 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 15 inches: moderate (0.6 to 2 inches/hour)
- 15 to 26 inches: moderate (0.6 to 2 inches/hour)
- 26 to 38 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
- 38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland

These soils are not suited for growing cultivated crops because of very bouldery surface and strongly sloping conditions. Large rock fragments on the surface generally make tillage impractical. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation. Erosion control is needed when pastures are renovated. Avoiding overgrazing will reduce the potential for soil erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads may be affected by seepage water flowing above the dense substratum of these soils during early spring each year. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with

fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table that is perched on the dense substratum may cause seepage into basements during the spring. Structures may need special design to avoid damage from wetness. The strongly sloping areas of this unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The seasonal high water table in some areas of these soils during spring may limit the absorption and proper treatment of effluent from conventional septic systems. These moderately deep soils over a dense material tend to have limited filtering capacity and the dense substratum may impede the proper installation of effluent distribution lines. The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of effluent from conventional septic systems. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Because of these strongly sloping areas, special design and installation techniques may be required. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

1080E—Becket sandy loam, 15 to 35 percent slopes, very bouldery

Setting

This unit is on moderately steep and steep hillsides in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components

Becket, very bouldery: 85 percent

Inclusions
Tunbridge: 5 percent
Monadnock: 3 percent
Skerry: 3 percent
Adams: 1 percent
Adirondack: 1 percent
Colton: 1 percent
Unnamed: 1 percent

Included in mapping are areas moderately deep to bedrock Tunbridge soils on nose slopes and ridgetops controlled by bedrock. Monadnock soils are included in areas where the dense substratum is deeper than 40 inches. Inclusions of moderately well drained Skerry and somewhat poorly drained Adirondack soils occur on footslopes and along drainageways. Also, small areas of Adams and Colton soils are included as deposits of outwash sand and gravel.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Becket, very bouldery: no
Hydrologic group:
  Becket, very bouldery: C

Soil Properties and Qualities

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
  0 to 1 inch: ultra acid to moderately acid (1.8 to 6.0 in $CaCl_2$)
  1 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in $CaCl_2$)
  3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
  5 to 8 inches: extremely acid to slightly acid (3.5 to 6.5)
  8 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
  15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
  26 to 38 inches: very strongly acid to neutral (4.5 to 7.3)
  38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  3 to 5 inches: moderate (0.6 to 2 inches/hour)

5 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 15 inches: moderate (0.6 to 2 inches/hour)
15 to 26 inches: moderate (0.6 to 2 inches/hour)
26 to 38 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland

These soils are not suited for growing cultivated crops because of very bouldery surface conditions and moderately steep and steep slopes. Large rock fragments on the surface generally make tillage impractical.

Pasture

These soils are poorly suited for pasture because of very bouldery surface conditions and moderately steep and steep slopes. Erosion control is needed if pastures are renovated. Avoiding overgrazing will reduce the potential for soil erosion. Large rock fragments on the surface and steep slopes restrict the safe operation of some farm machinery during pasture renovation. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are subject to seepage in the spring and erosion on these moderately steep and steep slopes. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

The moderately steep and steep slope causes safety concerns in use of machinery and adversely affects ease of excavation. Water seepage over the dense substratum may influence when excavations can take place and result in wet basements Special building practices and designs are required to ensure satisfactory performance.

Dwellings with Basements

Other sites should be considered for this use. The moderately steep and steep slope causes safety concerns in use of machinery and adversely affects ease of excavation. Water seepage over the dense substratum may influence when excavations can take place and result in wet basements Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of moderately steep and steep conditions, special design and installation techniques are needed for effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Water seepage in the spring may limit the absorption and proper treatment of effluent from conventional septic systems. Also, the moderately deep dense substratum adversely affects the filtering capacity of these soils and may greatly increase the difficulty of proper installation of distribution lines. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads. Special designs, including routing of roads along the contour, may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

1081B—Skerry fine sandy loam, 3 to 8 percent slopes, very bouldery

Setting

This unit is on gently sloping lower side slopes and head slopes on till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components

Skerry, very bouldery: 80 percent

Inclusions

Adirondack: 7 percent
Metacomet: 5 percent
Becket: 3 percent
Crary: 3 percent
Pillsbury: 2 percent

Included in mapping are areas of somewhat poorly drained Adirondack soils on footslopes and along drainageways, and well drained Becket soils on slightly convex areas. Moderately well drained Metacomet and somewhat poorly drained Pillsbury soils occur where there is little or no spodic material in the subsoil compared to Skerry soils. Inclusions of Crary soils occur where the subsoil has a higher content of silt and very fine sand.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Skerry, very bouldery: no
Hydrologic group:
  Skerry, very bouldery: C/D

Soil Properties and Qualities

Skerry, very bouldery
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: till plains
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
  0 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
  3 to 5 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
  5 to 7 inches: extremely acid to slightly acid (3.5 to 6.5)
  7 to 11 inches: extremely acid to slightly acid (3.5 to 6.5)
  11 to 17 inches: extremely acid to slightly acid (3.5 to 6.5)
  17 to 29 inches: extremely acid to slightly acid (3.5 to 6.5)
  29 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  3 to 5 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  5 to 7 inches: moderate (0.6 to 2 inches/hour)
  7 to 11 inches: moderate (0.6 to 2 inches/hour)
  11 to 17 inches: moderate (0.6 to 2 inches/hour)
  17 to 29 inches: moderate (0.6 to 2 inches/hour)
  29 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
These soils are not suited for growing cultivated crops because of very bouldery surface conditions. Large rock fragments on the surface generally make tillage impractical. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation. Erosion control may be needed when pastures are renovated. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are limited by the seasonal high water table and very bouldery surface condition. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through these soils may limit the absorption and proper treatment of effluent from conventional septic systems. The moderately deep dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of distribution lines. Surface boulders may impede excavation, system installation and traffic of heavy machinery. Onsite investigation is needed to determine the suitability

of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

1081C—Skerry fine sandy loam, 8 to 15 percent slopes, very bouldery

Setting

This unit is on strongly sloping lower side slopes and head slopes on till plains in the Adirondack foothills.

Map Unit Composition

Major Components
Skerry, very bouldery: 80 percent

Inclusions
Becket: 6 percent
Metacomet: 5 percent
Adirondack: 4 percent
Crary: 3 percent
Pillsbury: 2 percent

Included in mapping are areas of well drained Becket soils on convex areas, and somewhat poorly drained Adirondack soils on footslopes and along drainageways. Moderately well drained Metacomet and somewhat poorly drained Pillsbury soils occur where there is little or no spodic material in the subsoil compared to Skerry soils. Inclusions of Crary soils occur where the subsoil has a higher content of silt and very fine sand.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Skerry, very bouldery: no
Hydrologic group:
Skerry, very bouldery: C/D

Soil Properties and Qualities

Skerry, very bouldery
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate

Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: low hills
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
0 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
3 to 5 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
5 to 7 inches: extremely acid to slightly acid (3.5 to 6.5)
7 to 11 inches: extremely acid to slightly acid (3.5 to 6.5)
11 to 17 inches: extremely acid to slightly acid (3.5 to 6.5)
17 to 29 inches: extremely acid to slightly acid (3.5 to 6.5)
29 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
0 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 5 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
5 to 7 inches: moderate (0.6 to 2 inches/hour)
7 to 11 inches: moderate (0.6 to 2 inches/hour)
11 to 17 inches: moderate (0.6 to 2 inches/hour)
17 to 29 inches: moderate (0.6 to 2 inches/hour)
29 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland

These soils are not suited for growing cultivated crops because of very bouldery surface conditions. Large rock fragments on the surface generally make tillage impractical. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation. Erosion control may be needed when pastures are renovated. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are limited by the seasonal high water table and very bouldery surface condition. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.

- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance. Strongly sloping areas of this unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through these soils may limit the absorption and proper treatment of effluent from conventional septic systems. The moderately deep dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of distribution lines. Surface boulders may impede excavation, system installation and traffic of heavy machinery. Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations. Strongly sloping areas impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

1091C—Lyman-Becket-Tunbridge complex, 8 to 15 percent slopes, very rocky, very bouldery

Setting

This strongly sloping map unit is on upper side slopes of bedrock controlled areas in the foothills of the Adirondack Mountains. Becket soils have a firm, dense substratum.

Map Unit Composition

Major Components

Lyman, very bouldery: 35 percent

Becket, very bouldery: 30 percent
Tunbridge, very bouldery: 20 percent

Inclusions
Skerry: 5 percent
Adirondack: 3 percent
Monadnock: 3 percent
Sabattis: 1 percent
Rock outcrop: 3 percent

Included in mapping are areas of moderately well drained Skerry and somewhat poorly drained Adirondack soils on head slopes, concave areas and along drainageways. Small areas of Monadnock soils occur in areas where the dense substratum is greater than 40 inches deep. Sabattis soils are included in wetter areas between hills and along drainageways where ponding may occur.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
- Lyman, very bouldery: no
- Becket, very bouldery: no
- Tunbridge, very bouldery: no

Hydrologic group:
- Lyman, very bouldery: D
- Becket, very bouldery: C
- Tunbridge, very bouldery: C

Soil Properties and Qualities

Lyman, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low or low
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: shallow loamy till
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
- 1 to 2 inches: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
- 14 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 3 inches: moderate (0.6 to 2 inches/hour)
- 3 to 4 inches: moderate (0.6 to 2 inches/hour)
- 4 to 8 inches: moderate (0.6 to 2 inches/hour)

8 to 14 inches: moderate (0.6 to 2 inches/hour)
14 inches, bedrock

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
0 to 1 inch: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
1 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
5 to 8 inches: extremely acid to slightly acid (3.5 to 6.5)
8 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
26 to 38 inches: very strongly acid to neutral (4.5 to 7.3)
38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 5 inches: moderate (0.6 to 2 inches/hour)
5 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 15 inches: moderate (0.6 to 2 inches/hour)
15 to 26 inches: moderate (0.6 to 2 inches/hour)
26 to 38 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: moderately deep loamy till
Reaction (pH):
0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
22 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 3 to 4 inches: moderate (0.6 to 2 inches/hour)
- 4 to 5 inches: moderate (0.6 to 2 inches/hour)
- 5 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 22 inches: moderate (0.6 to 2 inches/hour)
- 22 inches, bedrock

Use and Management

Cropland

These soils are not suited for growing cultivated crops because of the rock outcrops, very bouldery surface conditions and some areas that are droughty.

Pasture

Rock outcrops and very bouldery surface conditions may restrict the operation of farm machinery during pasture renovation. Erosion control is needed when pastures are renovated. Avoiding overgrazing will reduce potential soil erosion. Plants may suffer moisture stress during the drier summer months because of the limited available water capacity. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- The Becket component of this map unit has a seasonal high water table in the spring. The Lyman and Tunbridge components of this map unit are shallow and moderately deep to bedrock respectively. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to areas of Lyman and Tunbridge soils and rock outcrops. Employing larger, more powerful machinery during construction and locating haul roads in areas that have fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control

structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The depth to bedrock and hardness of the bedrock greatly impact the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Excavation may be feasible within deeper inclusions. The seasonal high water table in areas of Becket soils limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of the depth to bedrock, these soils are very limited as a site for conventional septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Depth to hard bedrock seriously limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. The strongly sloping areas of this unit may impede trafficability of heavy machinery and increase the cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

1091E—Lyman-Becket-Tunbridge complex, 15 to 35 percent slopes, very rocky, very bouldery

Setting

This moderately steep and steep map unit is on ridges and side slopes of bedrock controlled areas in the foothills of the Adirondack Mountains. Becket soils have a firm, dense substratum.

Map Unit Composition

Major Components

Lyman, very bouldery: 35 percent
Becket, very bouldery: 30 percent
Tunbridge, very bouldery: 20 percent

Inclusions

Rock outcrop: 8 percent
Monadnock: 4 percent
Skerry: 2 percent
Adirondack: 1 percent

Included in mapping are areas of Monadnock soils where the dense substratum is greater than 40 inches deep. Also, inclusions of moderately well drained Skerry and somewhat poorly drained Adirondack soils occur on head slopes and along drainageways.

Interpretive Groups

Farmland class: not prime farmland

Land capability classification: 7s
Hydric soil rating:
Lyman, very bouldery: no
Becket, very bouldery: no
Tunbridge, very bouldery: no
Hydrologic group:
Lyman, very bouldery: D
Becket, very bouldery: C
Tunbridge, very bouldery: C

Soil Properties and Qualities

Lyman, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low or low
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: shallow loamy till
Reaction (pH):
0 to 1 inch: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
1 to 2 inches: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
8 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
14 inches, bedrock
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 3 inches: moderate (0.6 to 2 inches/hour)
3 to 4 inches: moderate (0.6 to 2 inches/hour)
4 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 14 inches: moderate (0.6 to 2 inches/hour)
14 inches, bedrock

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock

Reaction (pH):
- 0 to 1 inch: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
- 1 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
- 3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
- 5 to 8 inches: extremely acid to slightly acid (3.5 to 6.5)
- 8 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
- 15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
- 26 to 38 inches: very strongly acid to neutral (4.5 to 7.3)
- 38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 3 to 5 inches: moderate (0.6 to 2 inches/hour)
- 5 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 15 inches: moderate (0.6 to 2 inches/hour)
- 15 to 26 inches: moderate (0.6 to 2 inches/hour)
- 26 to 38 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
- 38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Tunbridge, very bouldery

Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: moderately deep loamy till
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
- 5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
- 22 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 3 to 4 inches: moderate (0.6 to 2 inches/hour)
- 4 to 5 inches: moderate (0.6 to 2 inches/hour)
- 5 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 22 inches: moderate (0.6 to 2 inches/hour)
- 22 inches, bedrock

Use and Management

Cropland

These soils are not suited for growing cultivated crops because of the rock outcrops, very bouldery surface conditions, moderately steep and steep slopes and some areas that are droughty.

Pasture

Rock outcrops, very bouldery surface conditions and steep slopes restrict the operation of farm machinery used in pasture renovation. Avoiding overgrazing will reduce potential soil erosion. Plants may suffer moisture stress during the drier summer months because of the limited available water capacity. The growing season may be shorter for these soils than for soils at lower elevations.

Woodland

- Haul roads are limited by the spring time seasonal high water table in the Becket component of this unit, shallow and moderately deep to bedrock in Lyman and Tunbridge components respectively, moderately steep and steep slopes and very bouldery surface conditions. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to areas of Lyman and Tunbridge soils and rock outcrops. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to wetness in the spring. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions. Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow and moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The shallow depth to bedrock and hardness of the bedrock greatly inhibit the ease of excavation and increase the

difficulty of constructing foundations and installing utilities. Some excavation may be feasible within deeper inclusions. The steep slope also adversely influences the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of the shallow bedrock, depth to dense material and steep slopes, these soils are poorly suited for conventional septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. The moderately steep and steep slope of these soils impedes trafficability of heavy machinery and increases the cost of building roads and streets. Special designs may be necessary.

1118C—Adams-Colton complex, 3 to 15 percent slopes

Setting

This unit is on gently sloping to strongly sloping glacial outwash plains and on the top of eskers in the Adirondack foothills.

Map Unit Composition

Major Components

Adams: 55 percent
Colton: 30 percent

Inclusions

Becket: 5 percent
Monadnock: 5 percent
Allagash: 2 percent
Croghan: 2 percent
Naumburg: 1 percent

Included in mapping are areas of Becket and Monadnock soils where there is a loamy till deposit overlying non-stratified sand and gravel. Allagash soils are included in areas having a loamy subsoil mantle. Small areas of moderately well drained Croghan and somewhat poorly drained Naumburg soils are included in slight depressions and along drainageways.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4s
Hydric soil rating:
  Adams: no
  Colton: no
Hydrologic group:
  Adams: A
  Colton: A

Soil Properties and Qualities

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, kame terraces, outwash plains
Parent material: sandy glaciofluvial deposits from predominantly crystalline rock and sandstone
Reaction (pH):
0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
5 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
9 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
14 to 17 inches: very strongly acid to moderately acid (4.5 to 6.0)
17 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)
32 to 58 inches: very strongly acid to slightly acid (4.5 to 6.5)
58 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 3 inches: rapid (6 to 20 inches/hour)
3 to 5 inches: rapid (6 to 20 inches/hour)
5 to 9 inches: rapid (6 to 20 inches/hour)
9 to 14 inches: rapid (6 to 20 inches/hour)
14 to 17 inches: rapid (6 to 20 inches/hour)
17 to 32 inches: very rapid (20 to 100 inches/hour)
32 to 58 inches: very rapid (20 to 100 inches/hour)
58 to 72 inches: very rapid (20 to 100 inches/hour)

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Landform: outwash plains, kame terraces; eskers
Parent material: sandy and gravelly glaciofluvial deposits
Reaction (pH):
0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
21 to 32 inches: extremely acid to moderately acid (3.5 to 6.0)
32 to 80 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
- 3 to 4 inches: rapid or very rapid (6 to 100 inches/hour)
- 4 to 5 inches: rapid or very rapid (6 to 100 inches/hour)
- 5 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
- 13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
- 21 to 32 inches: rapid or very rapid (6 to 100 inches/hour)
- 32 to 80 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland

These soils are limited to growing cultivated crops because of strongly sloping areas and low available water capacity. Plants may suffer from moisture stress during drier summer months. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These soils are limited for pasture because of low available water capacity in most areas. Plants may suffer moisture stress during the drier summer months. Erosion control is needed when pastures are renovated. Avoiding overgrazing will reduce potential soil erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season and drought-tolerant plant species is recommended.

Woodland

Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The strongly sloping areas of this unit affects the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. The excessive rate of fluid movement through these soils limits the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute ground water in the area near the absorption field. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Strongly sloping areas of this unit impede trafficability of heavy machinery and increases the cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

1118D—Adams-Colton complex, 15 to 35 percent slopes

Setting

This unit is on moderately steep to steep glacial outwash, eskers and kames in the Adirondack foothills.

Map Unit Composition

Major Components
Adams: 50 percent
Colton: 35 percent

Inclusions
Monadnock: 8 percent
Becket: 5 percent
Allagash: 1 percent
Croghan: 1 percent

Included in mapping are areas of Becket and Monadnock soils where there is a loamy till deposit overlying non-stratified sand and gravel. Allagash soils are included in areas having a loamy subsoil mantle. Small areas of moderately well drained Croghan soils are included in slight depression and along drainageways.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
    Adams: no
    Colton: no
Hydrologic group:
    Adams: A
    Colton: A

Soil Properties and Qualities

Adams
Drainage class: somewhat excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low to moderate
Potential frost action: low
Shrink-swell potential: low
Landform: proglacial deltas, kame terraces, outwash plains
Parent material: sandy glaciofluvial deposits from predominantly crystalline rock and sandstone
Reaction (pH):
    0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
    2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
    3 to 5 inches: very strongly acid to moderately acid (4.5 to 6.0)
    5 to 9 inches: very strongly acid to moderately acid (4.5 to 6.0)
    9 to 14 inches: very strongly acid to moderately acid (4.5 to 6.0)
    14 to 17 inches: very strongly acid to moderately acid (4.5 to 6.0)
    17 to 32 inches: very strongly acid to moderately acid (4.5 to 6.0)

32 to 58 inches: very strongly acid to slightly acid (4.5 to 6.5)
58 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 3 inches: rapid (6 to 20 inches/hour)
3 to 5 inches: rapid (6 to 20 inches/hour)
5 to 9 inches: rapid (6 to 20 inches/hour)
9 to 14 inches: rapid (6 to 20 inches/hour)
14 to 17 inches: rapid (6 to 20 inches/hour)
17 to 32 inches: very rapid (20 to 100 inches/hour)
32 to 58 inches: very rapid (20 to 100 inches/hour)
58 to 72 inches: very rapid (20 to 100 inches/hour)

Colton
Drainage class: excessively drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low
Potential frost action: low
Shrink-swell potential: low
Landform: outwash plains, kame terraces; eskers
Parent material: sandy and gravelly glaciofluvial deposits
Reaction (pH):
0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in $CaCl_2$)
1 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 13 inches: extremely acid to moderately acid (3.5 to 6.0)
13 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
21 to 32 inches: extremely acid to moderately acid (3.5 to 6.0)
32 to 80 inches: very strongly acid to slightly acid (4.5 to 6.5)
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: rapid or very rapid (6 to 100 inches/hour)
3 to 4 inches: rapid or very rapid (6 to 100 inches/hour)
4 to 5 inches: rapid or very rapid (6 to 100 inches/hour)
5 to 13 inches: rapid or very rapid (6 to 100 inches/hour)
13 to 21 inches: rapid or very rapid (6 to 100 inches/hour)
21 to 32 inches: rapid or very rapid (6 to 100 inches/hour)
32 to 80 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland

These soils are poorly suited to growing cultivated crops because of moderately steep and steep slopes and low available water capacity. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Properly designed erosion-control practices are needed on the steeper slopes. The use of farm machinery is restricted because of the slope. Plants may suffer from moisture stress during drier summer months. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture. The growing season may be shorter for these soils than for

soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These soils are limited for pasture because of moderately steep and steep slopes and droughtiness. Erosion control is needed when pastures are renovated. The use of farm machinery for pasture renovation is restricted because of the slope. Avoiding overgrazing can reduce potential soil erosion. Plants may suffer moisture stress during the drier summer months. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season and drought-tolerant plant species is recommended.

Woodland

Haul roads are limited by moderately steep and steep slopes. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads. Applying gravel base material during construction of haul roads will help overcome limitations due to sandy surface layers.

Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.

Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

This unit has moderately steep and steep slopes. The slope adversely influences the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of moderately steep and steep slopes, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slopes of this unit impedes trafficability of heavy machinery and increases the cost of building roads and streets. Special designs may be necessary. Routing roads around this unit can reduce construction and maintenance costs.

1170B—Henniker fine sandy loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components
Henniker: 75 percent

Inclusions
Metacomet: 9 percent
Skerry: 6 percent
Becket: 5 percent
Monadnock: 2 percent
Pillsbury: 2 percent
Unnamed, stony: 1 percent

Included in mapping are areas of moderately well drained Metacomet soils and somewhat poorly drained Pillsbury soils in slightly lower positions and along drainageways. Inclusions of Skerry, Becket and Monadnock soils occur where the subsoil has significant development of spodic material.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2e
Hydric soil rating:
  Henniker: no
Hydrologic group:
  Henniker: C

Soil Properties and Qualities

Henniker
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 28 to 40 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: till plains
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
  0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
  2 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
  8 to 20 inches: very strongly acid to moderately acid (4.5 to 6.0)
  20 to 31 inches: very strongly acid to moderately acid (4.5 to 6.0)
  31 to 52 inches: strongly acid or moderately acid (5.1 to 6.0)
  52 to 72 inches: strongly acid to slightly acid (5.1 to 6.5)
Permeability:
  0 to 2 inches: moderately rapid (2 to 6 inches/hour)
  2 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 20 inches: moderate (0.6 to 2 inches/hour)
  20 to 31 inches: moderate (0.6 to 2 inches/hour)
  31 to 52 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
  52 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland

These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These soils are well suited to pasture. Erosion control is needed when pastures are renovated. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads may be affected by seepage water flowing above the dense substratum of these soils during early spring each year. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during early spring, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table that is perched on the dense substratum may cause seepage into basements during the spring. Structures may need special design to avoid damage from wetness.

Septic Tank Absorption Fields

The seasonal high water table in some areas of these soils during spring may limit the absorption and proper treatment of the effluent from conventional septic systems. These moderately deep soils over a dense material tend to have limited filtering capacity and the dense substratum may impede the proper installation of effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

1170C—Henniker fine sandy loam, 8 to 15 percent slopes

Setting

This unit is on strongly sloping till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components
Henniker: 80 percent

Inclusions
Becket: 8 percent
Metacomet: 5 percent
Skerry: 3 percent
Monadnock: 2 percent
Pillsbury: 1 percent
Unnamed, stony: 1 percent

Included in mapping are areas of Skerry, Becket and Monadnock soils where the subsoil has significant development of spodic material. Inclusions of moderately well drained Metacomet soils and somewhat poorly drained Pillsbury soils occur in slightly lower positions and along drainageways.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
    Henniker: no
Hydrologic group:
    Henniker: C

Soil Properties and Qualities

Henniker
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 28 to 40 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: till plains
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
    0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in $CaCl_2$)
    2 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
    8 to 20 inches: very strongly acid to moderately acid (4.5 to 6.0)
    20 to 31 inches: very strongly acid to moderately acid (4.5 to 6.0)
    31 to 52 inches: strongly acid or moderately acid (5.1 to 6.0)
    52 to 72 inches: strongly acid to slightly acid (5.1 to 6.5)

Permeability:
- 0 to 2 inches: moderately rapid (2 to 6 inches/hour)
- 2 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 20 inches: moderate (0.6 to 2 inches/hour)
- 20 to 31 inches: moderate (0.6 to 2 inches/hour)
- 31 to 52 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
- 52 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland

These soils are limited for growing cultivated crops by strongly sloping areas. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These soils are well suited to pasture. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are subject to erosion on these strongly sloping areas. Avoiding construction during early spring seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads.
- Avoiding construction of log landings during early spring wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table that is perched on the dense substratum may cause seepage into basements during the spring. These strongly sloping soils may cause safety concerns in the use of machinery and adversely affect the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The depth to dense material and water seepage over the dense substratum during spring reduce the filtering capacity of these soils and may greatly increase the difficulty of properly installing effluent distribution lines. The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of effluent from conventional septic systems. Because of these strongly sloping areas, special design and installation techniques may be required. Onsite investigation is

needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

1170E—Henniker fine sandy loam, 15 to 35 percent slopes

Setting

This unit is on moderately steep and steep till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components
Henniker: 85 percent

Inclusions
Becket: 6 percent
Monadnock: 5 percent
Metacomet: 3 percent
Skerry: 1 percent

Included in mapping are areas of Becket, Skerry and Monadnock soils where the subsoil has significant development of spodic material. Inclusions of moderately well drained Metacomet soils occur in slightly concave positions and along drainageways.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 4e
Hydric soil rating:
Henniker: no
Hydrologic group:
Henniker: C

Soil Properties and Qualities

Henniker
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 28 to 40 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: till plains

Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
- 0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
- 2 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 8 to 20 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 20 to 31 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 31 to 52 inches: strongly acid or moderately acid (5.1 to 6.0)
- 52 to 72 inches: strongly acid to slightly acid (5.1 to 6.5)

Permeability:
- 0 to 2 inches: moderately rapid (2 to 6 inches/hour)
- 2 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 20 inches: moderate (0.6 to 2 inches/hour)
- 20 to 31 inches: moderate (0.6 to 2 inches/hour)
- 31 to 52 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
- 52 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland

These soils are very limited for growing cultivated crops by moderately steep and steep slopes. These slopes adversely affect safe machine operation and may cause accelerated soil erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Properly designed erosion-control practices are needed on the steeper slopes. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These soils are limited for pasture because of moderately steep and steep slopes. Erosion control is needed when pastures are renovated. Safe operation of machinery for pasture renovation is difficult on these slopes. Avoiding overgrazing can help to reduce the hazard of erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are subject to seepage in the spring and erosion on these moderately steep and steep slopes. Avoiding construction during wetness in spring, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes.
- Avoiding construction of log landings during spring, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome log landing suitability limitations. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during the spring or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during the spring.

- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The moderately steep and steep slope causes safety concerns in use of machinery and adversely affects ease of excavation. Water seepage over the dense substratum may influence when excavations can take place and result in wet basements Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of moderately steep and steep conditions, conventional septic systems will likely fail and special design and installation techniques will be needed for effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Water seepage in the spring may limit the absorption and proper treatment of effluent from conventional septic systems. Also, the moderately deep dense substratum adversely affects the filtering capacity of these soils and may greatly increase the difficulty of proper installation of distribution lines. Onsite investigation is needed to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads. Special designs, including routing of roads along the contour, may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

1171B—Metacomet fine sandy loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components

Metacomet: 80 percent

Inclusions

Pillsbury: 8 percent
Skerry: 5 percent
Henniker: 3 percent
Adirondack: 2 percent
Unnamed: 2 percent

Included in mapping are areas of somewhat poorly drained Pillsbury soils on slightly concave positions, and well drained Henniker soils on more convex positions. Skerry and Adirondack soils are included where the subsoil has more spodic material or reddish brown, iron enrichment.

Interpretive Groups

Farmland class: prime farmland
Land capability classification: 2w
Hydric soil rating:
  Metacomet: no
Hydrologic group:
  Metacomet: C/D

Soil Properties and Qualities

Metacomet
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: till plains
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
  0 to 2 inches: very strongly acid to neutral (4.5 to 7.3 in CaCl2)
  2 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
  8 to 20 inches: extremely acid to moderately acid (3.5 to 6.0)
  20 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
  27 to 31 inches: strongly acid to slightly acid (5.1 to 6.5)
  31 to 45 inches: strongly acid to slightly acid (5.1 to 6.5)
  45 to 72 inches: strongly acid to slightly acid (5.1 to 6.5)
Permeability:
  0 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
  2 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 20 inches: moderate (0.6 to 2 inches/hour)
  20 to 27 inches: moderate (0.6 to 2 inches/hour)
  27 to 31 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
  31 to 45 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
  45 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
These soils are among those soils in the county best suited for growing cultivated crops and meet the criteria for prime farmland. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Subsurface drainage in low areas may extend the period of planting and harvesting of crops.

The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These soils are well suited to pasture. Erosion control is needed when pastures are renovated. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are limited by the seasonal high water table. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal saturation.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Harvest equipment operability limitations caused by seasonal wetness can be diminished by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen.
- Rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table may limit the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness and seepage of water into the basement. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate rate of fluid movement through these soils may limit the absorption and proper treatment of effluent from conventional septic systems. The moderate depth to dense material can limit the filtering capacity of these soils and the dense substratum may cause difficult installation of distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

1171C—Metacomet fine sandy loam, 8 to 15 percent slopes

Setting

This unit is on strongly sloping till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components
Metacomet: 80 percent

Inclusions
Henniker: 6 percent
Pillsbury: 5 percent
Skerry: 5 percent
Adirondack: 2 percent
Unnamed: 2 percent

Included in mapping are areas of well drained Henniker soils on more convex positions, and somewhat poorly drained Pillsbury soils on slightly concave positions. Skerry and Adirondack soils are included where the subsoil has more spodic material or reddish brown, iron enrichment.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3e
Hydric soil rating:
  Metacomet: no
Hydrologic group:
  Metacomet: C/D

Soil Properties and Qualities

Metacomet
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Landform: till plains
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
  0 to 2 inches: very strongly acid to neutral (4.5 to 7.3 in CaCl2)
  2 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
  8 to 20 inches: extremely acid to moderately acid (3.5 to 6.0)
  20 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
  27 to 31 inches: strongly acid to slightly acid (5.1 to 6.5)
  31 to 45 inches: strongly acid to slightly acid (5.1 to 6.5)
  45 to 72 inches: strongly acid to slightly acid (5.1 to 6.5)

Permeability:
- 0 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 2 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 20 inches: moderate (0.6 to 2 inches/hour)
- 20 to 27 inches: moderate (0.6 to 2 inches/hour)
- 27 to 31 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
- 31 to 45 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
- 45 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland

These soils are limited for growing cultivated crops by strongly sloping areas with increased potential for soil erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Subsurface drainage in low areas may extend the period of planting and harvesting of crops. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These soils are well suited to pasture. Erosion control is needed when pastures are renovated. Avoiding overgrazing can help reduce soil erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are limited by seasonal wetness. Avoiding construction during early spring seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads.
- Avoiding construction of log landings during early spring wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- The rutting hazard can be overcome by restricting harvesting operations during spring, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance. Strongly sloping areas of this unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through these soils may limit the absorption and proper treatment of effluent from conventional septic systems. The moderately deep dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of distribution lines. Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations. Strongly sloping areas impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

1172B—Pillsbury fine sandy loam, 3 to 8 percent slopes

Setting

This unit is on gently sloping toeslopes and side slopes of till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components
Pillsbury, somewhat poorly drained phase: 75 percent

Inclusions
Pillsbury, poorly drained phase: 8 percent
Adirondack: 5 percent
Metacomet: 5 percent
Skerry: 3 percent
Henniker: 2 percent
Sabattis: 2 percent

Included in mapping are areas of poorly drained Pillsbury soils and very poorly drained Sabattis soils in depressions and along drainageways. Small areas of Adirondack and Skerry soils occur where the subsoil has substantial development of spodic material. Inclusions of moderately well drained Metacomet and well drained Henniker soils are included on knolls or other slightly higher positions.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 3w
Hydric soil rating:
    Pillsbury, somewhat poorly drained: no
Hydrologic group:
    Pillsbury, somewhat poorly drained: C/D

Soil Properties and Qualities

Pillsbury, somewhat poorly drained
Drainage class: somewhat poorly drained

Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 10 to 18 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Landform: toeslopes of till plains
Parent material: loamy lodgment till
Reaction (pH):
    0 to 5 inches: very strongly acid or strongly acid (4.5 to 5.5)
    5 to 17 inches: very strongly acid or strongly acid (4.5 to 5.5)
    17 to 26 inches: very strongly acid or strongly acid (4.5 to 5.5)
    26 to 33 inches: very strongly acid or strongly acid (4.5 to 5.5)
    33 to 72 inches: very strongly acid to moderately acid (4.5 to 6.0)
Permeability:
    0 to 5 inches: moderate (0.6 to 2 inches/hour)
    17 to 26 inches: moderate (0.6 to 2 inches/hour)
    26 to 33 inches: moderate (0.6 to 2 inches/hour)
    33 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland

This unit is limited for cultivated crops by a seasonal high water table. Systematic subsurface drainage may extend the period of planting and harvesting of crops. The root system of some deep-rooted crops may be damaged by frost action. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These soils are well suited to pasture. Excess water should be removed or diverted away from this unit. Grass or legume species that are adapted to wet soil conditions should be planted. Planting adapted species can also minimize the root damage caused by frost action. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are limited by the seasonal high water table. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen.

- Rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control may be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

Other sites should be considered for this use. The seasonal high water table in these soils greatly limits the absorption and proper treatment of the effluent from conventional septic systems. Because of the depth to dense material, the filtering capacity of these soils is minimal and the dense substratum may also cause difficult installation of distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Also, local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

1178A—Adirondack fine sandy loam, 0 to 3 percent slopes, very bouldery

Setting

This unit is on nearly level footslopes and toeslopes of till plains in the Adirondack Mountains. It has a firm, dense substratum.

Map Unit Composition

Major Components

Adirondack, very bouldery: 80 percent

Inclusions

Pillsbury: 5 percent
Sabattis: 5 percent
Skerry: 5 percent

Tughill: 1 percent
Unnamed: 4 percent

Included in mapping are areas of Pillsbury soils where spodic material in the subsoil is absent or weak compared to Adirondack soils. Moderately well drained Skerry soils are included on slightly higher or more convex positions. Also included are very poorly drained Sabattis and Tughill soils in areas subject to ponding.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Adirondack, very bouldery: no
Hydrologic group:
  Adirondack, very bouldery: C/D

Soil Properties and Qualities

Adirondack, very bouldery
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 15 to 38 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: low hills
Parent material: dense loamy till derived from igneous and metamorphic rock
Reaction (pH):
  0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4 in CaCl2)
  2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4 in CaCl2)
  4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
  6 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
  8 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
  9 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)
  18 to 26 inches: very strongly acid to moderately acid (4.5 to 6.0)
  26 to 34 inches: strongly acid or moderately acid (5.1 to 6.0)
  34 to 43 inches: strongly acid or moderately acid (5.1 to 6.0)
  43 to 72 inches: strongly acid or moderately acid (5.1 to 6.0)
Permeability:
  0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  2 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  6 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 9 inches: moderate (0.6 to 2 inches/hour)
  9 to 18 inches: moderate (0.6 to 2 inches/hour)
  18 to 26 inches: moderate (0.6 to 2 inches/hour)
  26 to 34 inches: slow (0.06 to 0.2 inches/hour)
  34 to 43 inches: slow (0.06 to 0.2 inches/hour)
  43 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland

These soils are not suited for growing cultivated crops because of very bouldery surface conditions and seasonal high water table. Large rock fragments on the surface generally make tillage impractical. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation. Erosion control may be needed when pastures are renovated. Excess water should be removed or diverted from this unit. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are limited by the seasonal high water table and very bouldery surface condition. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control may be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

Other sites should be considered for this use. The seasonal high water table in these soils greatly limits the absorption and proper treatment of the effluent from conventional septic systems. Because of the depth to dense material, the filtering capacity of these soils is minimal and the dense substratum may also cause difficult installation of distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Also, local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

1178B—Adirondack fine sandy loam, 3 to 8 percent slopes, very bouldery

Setting

This unit is on gently sloping footslopes and toeslopes of till plains in the Adirondack Mountains. It has a firm, dense substratum.

Map Unit Composition

Major Components

Adirondack, very bouldery: 75 percent

Inclusions

Skerry: 6 percent
Pillsbury: 5 percent
Sabattis: 4 percent
Metacomet: 3 percent
Tughill: 1 percent
Unnamed: 6 percent

Included in mapping are areas of Skerry soils on slightly higher or more convex positions. Inclusions of somewhat poorly drained Pillsbury and moderately well drained Metacomet soils occur where spodic material in the subsoil is absent or weak compared to Adirondack soils. Also included are very poorly drained Sabattis and Tughill soils in areas subject to ponding.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Adirondack, very bouldery: no
Hydrologic group:
    Adirondack, very bouldery: C/D

Soil Properties and Qualities

Adirondack, very bouldery

Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches

Depth to root-restrictive feature: 15 to 38 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: low hills
Parent material: dense loamy till derived from igneous and metamorphic rock
Reaction (pH):
0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4 in CaCl2)
2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4 in CaCl2)
4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
6 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
8 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
9 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)
18 to 26 inches: very strongly acid to moderately acid (4.5 to 6.0)
26 to 34 inches: strongly acid or moderately acid (5.1 to 6.0)
34 to 43 inches: strongly acid or moderately acid (5.1 to 6.0)
43 to 72 inches: strongly acid or moderately acid (5.1 to 6.0)
Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
4 to 6 inches: moderate (0.6 to 2 inches/hour)
6 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 9 inches: moderate (0.6 to 2 inches/hour)
9 to 18 inches: moderate (0.6 to 2 inches/hour)
18 to 26 inches: moderate (0.6 to 2 inches/hour)
26 to 34 inches: slow (0.06 to 0.2 inches/hour)
34 to 43 inches: slow (0.06 to 0.2 inches/hour)
43 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland

These soils are not suited for growing cultivated crops because of very bouldery surface conditions and seasonal high water table. Large rock fragments on the surface generally make tillage impractical. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation. Erosion control may be needed when pastures are renovated. Excess water should be removed or diverted from this unit. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are limited by the seasonal high water table and very bouldery surface condition. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul

roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems in some places where this map unit is cleared for development. Erecting erosion and sediment control structures where appropriate and stabilizing the soil surface with mulch and vegetation following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

Other sites should be considered for this use. The seasonal high water table in these soils greatly limits the absorption and proper treatment of the effluent from conventional septic systems. Because of the depth to dense material, the filtering capacity of these soils is minimal and the dense substratum may also cause difficult installation of distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Also, local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

1185A—Wonsqueak mucky peat, 0 to 2 percent slopes

Setting

Areas of this nearly level map unit are in depressions in upland valleys of the Adirondack Mountain foothills.

Map Unit Composition

Major Components
Wonsqueak: 85 percent

Inclusions
Humaquepts: 5 percent
Sabattis: 5 percent
Tughill: 5 percent

Included in mapping are areas of poorly drained Humaquepts near streams that frequently flood. Small areas of Sabattis and Tughill soils are included near the margins of this unit where loamy till exists.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7w
Hydric soil rating:
  Wonsqueak, undrained: yes
Hydrologic group:
  Wonsqueak, undrained: D

Soil Properties and Qualities

Wonsqueak, undrained
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
  Water table kind: apparent
  Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: swamps, marshes
Parent material: woody and herbaceous organic material over loamy till
Reaction (pH):
  0 to 9 inches: extremely acid to slightly acid (4.0 to 6.5 in CaCl2)
  9 to 24 inches: extremely acid to slightly acid (4.0 to 6.5 in CaCl2)
  24 to 44 inches: very strongly acid to slightly acid (4.5 to 6.5 in CaCl2)
  44 to 72 inches: strongly acid to neutral (5.1 to 7.3)
Permeability:
  0 to 9 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  9 to 24 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  24 to 44 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  44 to 72 inches: moderately slow or moderate (0.2 to 2 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
These soils are not suited to cultivated crops due to ponding or seasonal high water table.

Pasture
These soils are not suited to pasture due to ponding or seasonal high water table and low soil strength.

Woodland
- These very poorly drained soils are poorly suited to haul roads. Locating roads on higher, better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations. Consult the Water Features table for months of seasonal saturation.
- These soils having thick organic surfaces and subject to ponding should be avoided when locating log landings.
- Limiting timber harvesting operations to winter months when the ground is frozen is recommended for these soils with thick organic surfaces and low bearing strength.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to ponding. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements
These soils are not suited for this use because of ponding, a seasonal high water table and excess organic deposits causing subsidence.

Septic Tank Absorption Fields
This unit is not suited for this use because of ponding, a seasonal high water table and excess organic deposits.

Local Roads and Streets
These soils are very limited for local roads and streets due to the potential for ponding and excess organic material. Seasonal ponding adversely affects the ease of excavation and grading and limits the bearing capacity of the soil. Subsidence of the organic material reduces the load-bearing capacity of these soils.

1190C—Tunbridge-Lyman complex, 3 to 15 percent slopes, very rocky, very bouldery

Setting

This gently sloping and strongly sloping map unit is on ridgetops and nose slopes of bedrock controlled till plains in the Adirondack Mountains.

Map Unit Composition

Major Components
Tunbridge, very bouldery: 50 percent
Lyman, very bouldery: 25 percent

Inclusions
Rock outcrop: 5 percent
Knob Lock: 5 percent
Becket: 4 percent
Adirondack: 3 percent
Adams: 2 percent
Colton: 1 percent
Unnamed: 5 percent

Included in mapping are areas of Knob Lock soils where thick organic deposits occur over bedrock. Small areas of very deep Becket and Adirondack soils are included between rock outcrop knobs and along drainageways. Inclusions of Adams and Colton soils occur in areas of outwash terraces and other sand and gravel deposits.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Tunbridge, very bouldery: no
  Lyman, very bouldery: no
Hydrologic group:
  Tunbridge, very bouldery: C
  Lyman, very bouldery: D

Soil Properties and Qualities

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: moderately deep loamy till
Reaction (pH):
  0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in $CaCl_2$)
  1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in $CaCl_2$)
  3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
  4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
  8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
  22 inches, bedrock
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  3 to 4 inches: moderate (0.6 to 2 inches/hour)
  4 to 5 inches: moderate (0.6 to 2 inches/hour)
  5 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 22 inches: moderate (0.6 to 2 inches/hour)
  22 inches, bedrock

Lyman, very bouldery

Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low or low
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: shallow loamy till
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
- 1 to 2 inches: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
- 14 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 3 inches: moderate (0.6 to 2 inches/hour)
- 3 to 4 inches: moderate (0.6 to 2 inches/hour)
- 4 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 14 inches: moderate (0.6 to 2 inches/hour)
- 14 inches, bedrock

Use and Management

Cropland

These soils are not suited for growing cultivated crops because of the rock outcrops and very bouldery surface conditions.

Pasture

These soils are limited for pasture because of rock outcrops and very bouldery surface conditions. Rock outcrops and large rock fragments on the surface may restrict the operation of farm machinery during pasture renovation. Erosion control is needed when pastures are renovated. Plants may suffer moisture stress during the drier summer months because of low available water capacity in areas of Lyman soils. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

Haul roads are limited by depth to bedrock and very bouldery surface conditions. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to shallow soils. Employing larger, more powerful machinery during construction and locating haul roads and log landings in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.

Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.

Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic

salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Excavation may be more feasible within inclusions of deeper soils. Strongly sloping areas of this unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of depth to bedrock, these soils are very limited as a site for conventional septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. Strongly sloping areas of this unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

1190E—Tunbridge-Lyman complex, 15 to 35 percent slopes, very rocky, very bouldery

Setting

This moderately steep and steep map unit is on ridges and side slopes of bedrock controlled areas in the Adirondack Mountains.

Map Unit Composition

Major Components

Tunbridge, very bouldery: 50 percent
Lyman, very bouldery: 30 percent

Inclusions

Rock outcrop: 6 percent
Knob Lock: 4 percent
Becket: 3 percent
Adirondack: 2 percent
Adams: 1 percent

Colton: 1 percent
Unnamed: 3 percent

Included in mapping are areas of Knob Lock soils where thick organic deposits occur over bedrock. Small areas of very deep Becket and Adirondack soils are included between knobs and along drainageways. Inclusions of Adams and Colton soils occur in areas of outwash terraces and other sand and gravel deposits.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Tunbridge, very bouldery: no
  Lyman, very bouldery: no
Hydrologic group:
  Tunbridge, very bouldery: C
  Lyman, very bouldery: D

Soil Properties and Qualities

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: moderately deep loamy till
Reaction (pH):
  0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
  4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
  8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
  22 inches, bedrock
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  3 to 4 inches: moderate (0.6 to 2 inches/hour)
  4 to 5 inches: moderate (0.6 to 2 inches/hour)
  5 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 22 inches: moderate (0.6 to 2 inches/hour)
  22 inches, bedrock

Lyman, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low or low
Potential frost action: moderate
Shrink-swell potential: low

Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: shallow loamy till
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
- 1 to 2 inches: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
- 14 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 3 inches: moderate (0.6 to 2 inches/hour)
- 3 to 4 inches: moderate (0.6 to 2 inches/hour)
- 4 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 14 inches: moderate (0.6 to 2 inches/hour)
- 14 inches, bedrock

Use and Management

Cropland

These soils are not suited for growing cultivated crops because of the rock outcrops, very bouldery surface conditions and moderately steep and steep slopes.

Pasture

These soils are poorly suited for pasture because of rock outcrops, very bouldery surface conditions and moderately steep and steep slopes. The steep, very bouldery and very rocky slope restricts the safe use of most farm equipment used in pasture renovation. Plants may suffer moisture stress during the drier summer months because of low available water capacity in the Lyman part of this unit. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are limited by moderately steep and steep slopes, depth to bedrock and very bouldery conditions. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to shallow soils. Employing larger, more powerful machinery during construction and locating haul roads and log landings in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.

- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Excavation may be more feasible within inclusions of deeper soils. The moderately steep and steep slopes adversely affect the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of shallow depth to bedrock and steep slopes, these soils are poorly suited as a site for conventional septic tank absorption fields. Use of alternative systems may be possible in areas of deeper and less sloping soil inclusions. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slopes of this unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Special designs may be necessary. Routing new roads around this map unit will help save construction and maintenance costs. Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.

1190F—Tunbridge-Lyman complex, 35 to 70 percent slopes, very rocky, very bouldery

Setting

This map unit is on ridges and very steep side slopes of bedrock controlled areas in the Adirondack Mountains.

Map Unit Composition

Major Components

Tunbridge, very bouldery: 45 percent
Lyman, very bouldery: 30 percent

Inclusions

Rock outcrop: 9 percent
Knob Lock: 6 percent
Becket: 2 percent
Adams: 1 percent
Adirondack: 1 percent

Colton: 1 percent
Unnamed: 5 percent

Included in mapping are areas of Knob Lock soils where thick organic deposits occur over bedrock. Small areas of very deep Becket and Adirondack soils are included along drainageways. Inclusions of Adams and Colton soils occur in areas of outwash terraces and other sand and gravel deposits.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Tunbridge, very bouldery: no
  Lyman, very bouldery: no
Hydrologic group:
  Tunbridge, very bouldery: C
  Lyman, very bouldery: D

Soil Properties and Qualities

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: moderately deep loamy till
Reaction (pH):
  0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
  4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
  8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
  22 inches, bedrock
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  3 to 4 inches: moderate (0.6 to 2 inches/hour)
  4 to 5 inches: moderate (0.6 to 2 inches/hour)
  5 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 22 inches: moderate (0.6 to 2 inches/hour)
  22 inches, bedrock

Lyman, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low or low
Potential frost action: moderate
Shrink-swell potential: low

Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: shallow loamy till
Reaction (pH):
    0 to 1 inch: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
    1 to 2 inches: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
    2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
    3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
    4 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
    8 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
    14 inches, bedrock
Permeability:
    0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    2 to 3 inches: moderate (0.6 to 2 inches/hour)
    3 to 4 inches: moderate (0.6 to 2 inches/hour)
    4 to 8 inches: moderate (0.6 to 2 inches/hour)
    8 to 14 inches: moderate (0.6 to 2 inches/hour)
    14 inches, bedrock

Use and Management

Cropland

These soils are not suited to growing cultivated crops because of the very steep slope, very bouldery surface conditions and rock outcrops.

Pasture

These soils are not suited for pasture because of very steep slope, very bouldery surface and rock outcrops.

Woodland

- Haul roads are limited by very steep slopes, depth to bedrock and very bouldery conditions. Avoiding construction of haul roads on slopes exceeding 35 percent is recommended. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to shallow soils. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions and very steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The very steep slope amd bedrock ledges seriously limit the safe use of machinery. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of the very steep slope and shallow bedrock, conventional septic systems will likely fail and special designs will be required. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The very steep slopes of this unit greatly impede trafficability of heavy machinery and significantly increase the difficulty and cost of building roads and streets. Blasting and special designs may be necessary. New roads should be routed around this map unit.

1193A—Wonsqueak-Humaquepts complex, 0 to 3 percent slopes, frequently flooded

Setting

Areas of this nearly level map unit are along streams of small upland valleys in the Adirondack Mountain foothills.

Map Unit Composition

Major Components
Wonsqueak: 60 percent
Humaquepts, frequently flooded: 30 percent

Inclusions
Sabattis: 5 percent
Unnamed: 5 percent

Included in mapping are areas of Sabattis soils on the margins of this unit where loamy till exists.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7w
Hydric soil rating:
  Wonsqueak: yes
  Humaquepts, frequently flooded: yes
Hydrologic group:
  Wonsqueak: D
  Humaquepts, frequently flooded: A/D

Soil Properties and Qualities

Wonsqueak
Drainage class: very poorly drained

Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
    Water table kind: apparent
    Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: swamps, marshes
Parent material: woody and herbaceous organic material over loamy till
Reaction (pH):
    0 to 9 inches: extremely acid to slightly acid (4.0 to 6.5 in CaCl2)
    9 to 24 inches: extremely acid to slightly acid (4.0 to 6.5 in CaCl2)
    24 to 44 inches: very strongly acid to slightly acid (4.5 to 6.5 in CaCl2)
    44 to 72 inches: strongly acid to neutral (5.1 to 7.3)
Permeability:
    0 to 9 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    9 to 24 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    24 to 44 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    44 to 72 inches: moderately slow or moderate (0.2 to 2 inches/hour)

Humaquepts, frequently flooded
Drainage class: poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
    Water table kind: apparent
Flooding: frequent
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Landform: flood plains
Parent material: recent alluvium
Reaction (pH):
    0 to 2 inches: ultra acid to strongly acid (3.0 to 5.5 in CaCl2)
    2 to 9 inches: very strongly acid to neutral (4.5 to 7.3)
    9 to 20 inches: very strongly acid to moderately alkaline (4.5 to 8.4)
    20 to 23 inches: very strongly acid to moderately alkaline (4.5 to 8.4)
    23 to 60 inches: very strongly acid to moderately alkaline (4.5 to 8.4)
Permeability:
    0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    2 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    9 to 20 inches: moderately slow to very rapid (0.2 to 100 inches/hour)
    20 to 23 inches: moderately slow to very rapid (0.2 to 100 inches/hour)
    23 to 60 inches: moderately slow to very rapid (0.2 to 100 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland
These soils are not suited to cultivated crops due to ponding and flooding.

Pasture

These soils are not suited to pasture due to ponding and flooding.

Woodland

- Haul roads are limited by ponding or seasonal high water table and flooding. Locating roads on higher, better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads due to wetness. Avoiding construction of haul roads in frequently flooded areas is recommended. Consult the Water Features table for months of seasonal saturation.
- Areas of soils with thick organic surfaces and subject to ponding or frequent flooding should be avoided when locating log landings.
- Areas of soils with thick organic surfaces should only be harvested in the winter months by tracked equipment in years when the soils are frozen and snow pack is deep enough to protect them from rutting.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to ponding or flooding. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

Other sites should be considered for this use because of ponding and frequent flooding. The period when excavations can be safely made is brief. The potential for excessive subsidence in these soils severely limits the capacity to support a load without movement and can cause shifting or collapsing foundations and cracking of basement walls and floors. Potential for flooding severely limits the capacity of these soils to bear a load without movement. Flooding may result in costly physical damage to buildings.

Septic Tank Absorption Fields

Other sites should be considered for this use because of ponding and frequent flooding on this unit. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

These soils are very limited for local roads and streets due to ponding and frequent flooding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil. Flooding limits the continued use of these soils for local roads and streets. Special design of roads and bridges is necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce this limitation. Subsidence of the organic material adversely affects the load-bearing capacity of these soils.

1291C—Becket-Lyman-Tunbridge complex, 8 to 15 percent slopes, very rocky, very bouldery

Setting

This strongly sloping map unit is on upper side slopes and shoulders of bedrock controlled areas in the Adirondack Mountains (fig. 22). Becket soils have a firm, dense substratum.

Figure 22.—Bedrock is the controlling factor for land use in areas of map unit 1291C, Becket-Lyman-Tunbridge complex. In between bedrock outcropping and surface boulders, the very deep Becket soils have a dense substratum 2 to 3 feet below the surface that limits root growth.

Map Unit Composition

Major Components
Becket, very bouldery: 35 percent
Lyman, very bouldery: 25 percent
Tunbridge, very bouldery: 20 percent

Inclusions
Skerry: 7 percent
Adirondack: 6 percent
Sabattis: 1 percent
Rock outcrop: 6 percent

Included in mapping are areas of moderately well drained Skerry and somewhat poorly drained Adirondack soils on head slopes and along drainageways. Also included are very poorly drained Sabattis soils in low lying areas and along drainageways where ponding occurs.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Becket, very bouldery: no
  Lyman, very bouldery: no
  Tunbridge, very bouldery: no
Hydrologic group:
  Becket, very bouldery: C

Lyman, very bouldery: D
Tunbridge, very bouldery: C

Soil Properties and Qualities

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
0 to 1 inch: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
1 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
5 to 8 inches: extremely acid to slightly acid (3.5 to 6.5)
8 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
26 to 38 inches: very strongly acid to neutral (4.5 to 7.3)
38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 5 inches: moderate (0.6 to 2 inches/hour)
5 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 15 inches: moderate (0.6 to 2 inches/hour)
15 to 26 inches: moderate (0.6 to 2 inches/hour)
26 to 38 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Lyman, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low or low
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: 10 to 20 inches of loamy till
Reaction (pH):
0 to 1 inch: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
1 to 2 inches: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
8 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
14 inches, bedrock

Permeability:
 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 2 to 3 inches: moderate (0.6 to 2 inches/hour)
 3 to 4 inches: moderate (0.6 to 2 inches/hour)
 4 to 8 inches: moderate (0.6 to 2 inches/hour)
 8 to 14 inches: moderate (0.6 to 2 inches/hour)
 14 inches, bedrock

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: loamy till
Reaction (pH):
 0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
 1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
 5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
 8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
 22 inches, bedrock
Permeability:
 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 3 to 4 inches: moderate (0.6 to 2 inches/hour)
 4 to 5 inches: moderate (0.6 to 2 inches/hour)
 5 to 8 inches: moderate (0.6 to 2 inches/hour)
 8 to 22 inches: moderate (0.6 to 2 inches/hour)
 22 inches, bedrock

Use and Management

Cropland
These soils are not suited for growing cultivated crops because of the rock outcrops, very bouldery surface conditions and some areas that are droughty.

Pasture
Rock outcrops and very bouldery surface conditions may restrict the operation of farm machinery during pasture renovation. Erosion control is needed when pastures are renovated. Avoiding overgrazing will reduce potential soil erosion. Plants may suffer moisture stress during the drier summer months because of low available water capacity in areas of Lyman soils. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- The Becket component of this map unit has a seasonal high water table in the spring. The Lyman and Tunbridge components of this map unit are shallow and moderately deep to bedrock respectively. Avoiding construction during periods of

seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to areas of Lyman and Tunbridge soils and rock outcrops. Employing larger, more powerful machinery during construction and locating haul roads in areas that have fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The depth to bedrock and hardness of the bedrock greatly impact the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Excavation may be feasible within deeper inclusions. The seasonal high water table in areas of Becket soils limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of the depth to bedrock, these soils are very limited as a site for conventional septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Depth to hard bedrock seriously limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. The strongly sloping areas of this unit may impede trafficability of heavy machinery and increase the cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

1291D—Becket-Lyman-Tunbridge complex, 15 to 35 percent slopes, very rocky, very bouldery

Setting

This map unit is on moderately steep and steep side slopes and ridges of bedrock controlled areas in the Adirondack Mountains. Becket soils have a firm, dense substratum.

Map Unit Composition

Major Components
Becket, very bouldery: 40 percent
Lyman, very bouldery: 25 percent
Tunbridge, very bouldery: 20 percent

Inclusions
Skerry: 6 percent
Adirondack: 2 percent
Rock outcrop: 7 percent

Included in mapping are areas of moderately well drained Skerry and somewhat poorly drained Adirondack soils on head slopes and along drainageways.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
    Becket, very bouldery: no
    Lyman, very bouldery: no
    Tunbridge, very bouldery: no
Hydrologic group:
    Becket, very bouldery: C
    Lyman, very bouldery: D
    Tunbridge, very bouldery: C

Soil Properties and Qualities

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
    0 to 1 inch: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
    1 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
    3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)

5 to 8 inches: extremely acid to slightly acid (3.5 to 6.5)
8 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
26 to 38 inches: very strongly acid to neutral (4.5 to 7.3)
38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 5 inches: moderate (0.6 to 2 inches/hour)
5 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 15 inches: moderate (0.6 to 2 inches/hour)
15 to 26 inches: moderate (0.6 to 2 inches/hour)
26 to 38 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Lyman, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low or low
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: 10 to 20 inches of loamy till
Reaction (pH):
0 to 1 inch: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
1 to 2 inches: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
8 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
14 inches, bedrock
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 3 inches: moderate (0.6 to 2 inches/hour)
3 to 4 inches: moderate (0.6 to 2 inches/hour)
4 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 14 inches: moderate (0.6 to 2 inches/hour)
14 inches, bedrock

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: loamy till

Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
- 5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
- 22 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 3 to 4 inches: moderate (0.6 to 2 inches/hour)
- 4 to 5 inches: moderate (0.6 to 2 inches/hour)
- 5 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 22 inches: moderate (0.6 to 2 inches/hour)
- 22 inches, bedrock

Use and Management

Cropland

These soils are not suited to growing cultivated crops because of the rock outcrops, very bouldery surface conditions and moderately steep and steep slopes.

Pasture

These soils are poorly suited for pasture because of moderately steep and steep slopes, very bouldery surface conditions and rock outcrops. Rock outcrops, large rock fragments on the surface and steep slopes restrict the safe operation of farm machinery used for pasture renovation. Erosion control is needed when pastures are renovated. The growing season may be shorter for these soils than for soils at lower elevations.

Woodland

- Haul roads are limited by the spring time seasonal high water table in the Becket component of this unit, shallow and moderately deep to bedrock in Lyman and Tunbridge components respectively, moderately steep and steep slopes and very bouldery surface conditions. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to areas of Lyman and Tunbridge soils and rock outcrops. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to wetness in the spring. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during

winter months when soils are frozen. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions. Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow and moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The shallow depth to bedrock and hardness of the bedrock greatly inhibit the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be feasible within deeper inclusions. The steep slope also adversely influences the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of the shallow bedrock, depth to dense material and steep slopes, these soils are poorly suited for conventional septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. The moderately steep and steep slope of these soils impedes trafficability of heavy machinery and increases the cost of building roads and streets. Special designs may be necessary.

1292C—Becket-Tunbridge complex, 3 to 15 percent slopes, rocky, very bouldery

Setting

This map unit is on gently sloping and strongly sloping side slopes of bedrock controlled areas in the foothills of the Adirondack Mountains. Becket soils have a firm, dense substratum.

Map Unit Composition

Major Components
Becket, very bouldery: 50 percent
Tunbridge, very bouldery: 25 percent

Inclusions
Skerry: 9 percent
Adirondack: 5 percent
Lyman: 5 percent
Henniker: 3 percent
Monadnock: 2 percent
Rock outcrop: 1 percent

Included in mapping are areas of moderately well drained Skerry and somewhat poorly drained Adirondack soils on head slopes and along drainageways. Small areas of shallow to bedrock Lyman soils are included on nose slopes and on ridges. Inclusions of Henniker soils occur where spodic material is absent or weak in the subsoil in comparison to Becket soils. Also included are small areas of Monadnock soils which are commonly friable to 40 inches or deeper.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Becket, very bouldery: no
    Tunbridge, very bouldery: no
Hydrologic group:
    Becket, very bouldery: C
    Tunbridge, very bouldery: C

Soil Properties and Qualities

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
    0 to 1 inch: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
    1 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
    3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
    5 to 8 inches: extremely acid to slightly acid (3.5 to 6.5)
    8 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
    15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
    26 to 38 inches: very strongly acid to neutral (4.5 to 7.3)
    38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 3 to 5 inches: moderate (0.6 to 2 inches/hour)
- 5 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 15 inches: moderate (0.6 to 2 inches/hour)
- 15 to 26 inches: moderate (0.6 to 2 inches/hour)
- 26 to 38 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
- 38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Tunbridge, very bouldery

Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: loamy till
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
- 5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
- 22 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 3 to 4 inches: moderate (0.6 to 2 inches/hour)
- 4 to 5 inches: moderate (0.6 to 2 inches/hour)
- 5 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 22 inches: moderate (0.6 to 2 inches/hour)
- 22 inches, bedrock

Use and Management

Cropland

These soils are not suited for growing cultivated crops because of very bouldery surface conditions. The rooting depth of some crops may be restricted by bedrock. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

Very bouldery surface conditions may restrict the operation of farm machinery during pasture renovation. Erosion control is needed when pastures are renovated. Avoiding overgrazing will reduce potential soil erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- The Becket component of this map unit has a seasonal high water table in the spring. The Tunbridge component of this map unit is moderately deep to bedrock.

Avoiding construction during periods of seasonal wetness in areas of Becket soils, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions. Locating haul roads on soils that are deeper to bedrock will help overcome construction limitations due to areas of moderately deep Tunbridge soils.

- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Excavation may be feasible within deeper inclusions. The seasonal high water table in areas of Becket soils limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness.

Septic Tank Absorption Fields

The seasonal high water table in some areas of this unit may limit the absorption and proper treatment of effluent from conventional septic systems. The somewhat limited depth to dense material and bedrock reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Depth to hard bedrock may limit site preparation such as shaping and grading and restrict installation of roads and streets. The seasonal high water table in areas of Becket soil impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce these limitations. The slope of

these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

1292E—Becket-Tunbridge complex, 15 to 35 percent slopes, rocky, very bouldery

Setting

This map unit is on moderately steep and steep side slopes of bedrock controlled areas in the foothills of the Adirondack Mountains. Becket soils have a firm, dense substratum.

Map Unit Composition

Major Components
Becket, very bouldery: 50 percent
Tunbridge, very bouldery: 30 percent

Inclusions
Henniker: 5 percent
Lyman: 5 percent
Monadnock: 3 percent
Skerry: 3 percent
Adams: 1 percent
Adirondack: 1 percent
Colton: 1 percent
Rock outcrop: 1 percent

Included in mapping are areas of Henniker soils where spodic material is absent or weak in the subsoil in comparison to Becket soils. Small areas of shallow to bedrock Lyman soils are included on nose slopes and on ridges. Monadnock soils are included in areas where the substratum is friable to 40 inches or deeper. Included are small areas of moderately well drained Skerry and somewhat poorly drained Adirondack soils on footslopes and along drainageways. Also, Adams and Colton soils are included in areas of outwash sand or gravel.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Becket, very bouldery: no
  Tunbridge, very bouldery: no
Hydrologic group:
  Becket, very bouldery: C
  Tunbridge, very bouldery: C

Soil Properties and Qualities

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
  Water table kind: perched

Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
0 to 1 inch: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
1 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
5 to 8 inches: extremely acid to slightly acid (3.5 to 6.5)
8 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
26 to 38 inches: very strongly acid to neutral (4.5 to 7.3)
38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 5 inches: moderate (0.6 to 2 inches/hour)
5 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 15 inches: moderate (0.6 to 2 inches/hour)
15 to 26 inches: moderate (0.6 to 2 inches/hour)
26 to 38 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: loamy till
Reaction (pH):
0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
22 inches, bedrock
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 4 inches: moderate (0.6 to 2 inches/hour)
4 to 5 inches: moderate (0.6 to 2 inches/hour)
5 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 22 inches: moderate (0.6 to 2 inches/hour)
22 inches, bedrock

Use and Management

Cropland

These soils are not suited to growing cultivated crops because of very bouldery surface conditions and moderately steep and steep slopes.

Pasture

These soils are poorly suited for pasture because of moderately steep and steep slopes and very bouldery surface conditions. Large rock fragments on the surface and steep slopes restrict the safe operation of farm machinery used for pasture renovation. Erosion control is needed when pastures are renovated. The growing season may be shorter for these soils than for soils at lower elevations.

Woodland

- Haul roads are limited by the spring time seasonal high water table in the Becket component of this unit, moderately deep to bedrock Tunbridge component, moderately steep and steep slopes and very bouldery surface conditions. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to areas of Tunbridge soils and rock outcrops. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to wetness in the spring. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions. Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow and moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment

control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The depth to bedrock and hardness of the bedrock in Tunbridge areas of this unit greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Moderately steep and steep slope adversely affects the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance. The seasonal high water table in Becket soil limits the capacity to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of moderately steep and steep slope, special design and installation techniques are needed for the effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. The seasonal high water table in some areas of Becket soils may limit the absorption and proper treatment of the effluent from septic systems. The somewhat limited depth to dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of the effluent distribution lines. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary. Depth to hard bedrock in areas of Tunbridge soils may limit site preparation such as shaping and grading and restrict installation of roads and streets. The seasonal high water table in some areas of Becket soil may impede excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce these limitations.

1292F—Becket-Tunbridge complex, 35 to 60 percent slopes, rocky, very bouldery

Setting

This map unit is on very steep side slopes of bedrock controlled areas in the foothills of the Adirondack Mountains. Becket soils have a firm, dense substratum.

Map Unit Composition

Major Components

Becket, very bouldery: 55 percent
Tunbridge, very bouldery: 30 percent

Inclusions

Lyman: 6 percent
Monadnock: 3 percent
Skerry: 2 percent

Adams: 1 percent
Adirondack: 1 percent
Colton: 1 percent
Rock outcrop: 1 percent

Small areas of shallow to bedrock Lyman soils are included on nose slopes and on ridges. Monadnock soils are included in areas where the substratum is friable to more than 40 inches deep. Included are small areas of moderately well drained Skerry and somewhat poorly drained Adirondack soils on footslopes and along drainageways. Also, Adams and Colton soils are included in areas of outwash sand or gravel.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Becket, very bouldery: no
  Tunbridge, very bouldery: no
Hydrologic group:
  Becket, very bouldery: C
  Tunbridge, very bouldery: C

Soil Properties and Qualities

Becket, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
  0 to 1 inch: ultra acid to moderately acid (1.8 to 6.0 in $CaCl_2$)
  1 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in $CaCl_2$)
  3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
  5 to 8 inches: extremely acid to slightly acid (3.5 to 6.5)
  8 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
  15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
  26 to 38 inches: very strongly acid to neutral (4.5 to 7.3)
  38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  3 to 5 inches: moderate (0.6 to 2 inches/hour)
  5 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 15 inches: moderate (0.6 to 2 inches/hour)
  15 to 26 inches: moderate (0.6 to 2 inches/hour)
  26 to 38 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
  38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: loamy till
Reaction (pH):
  0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
  4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
  5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
  8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
  22 inches, bedrock
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  3 to 4 inches: moderate (0.6 to 2 inches/hour)
  4 to 5 inches: moderate (0.6 to 2 inches/hour)
  5 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 22 inches: moderate (0.6 to 2 inches/hour)
  22 inches, bedrock

Use and Management

Cropland

These soils are not suited to growing cultivated crops because of very bouldery surface conditions and very steep slopes.

Pasture

These soils are not suited for pasture because of very steep slopes and very bouldery surface conditions. Large rock fragments on the surface and very steep slopes inhibit the safe operation of farm machinery used for pasture renovation. The growing season may be shorter for these soils than for soils at lower elevations.

Woodland

- Very steep slopes present serious operational and management problems. Avoiding construction of haul roads on slopes exceeding 35 percent is recommended. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent may help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Other sites should be considered for log landing because of very steep slopes. Locating log landings in areas with fewer surface boulders or stones may help overcome construction and operational limitations due to very bouldery surface conditions. Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying

coarse-grained base material may help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to moderately deep soils. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The very steep slope prevents the use of most machinery used in excavation. Special building practices and designs are required to ensure satisfactory performance. The depth to bedrock and hardness of the bedrock in areas of Tunbridge soil greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. The seasonal high water table in some areas of this unit limits the capacity of these soils to bear a load without movement and causes wet basements. Special design of structures is needed to prevent damage caused by wetness.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of the very steep slope, conventional septic systems will likely fail. Onsite investigation may reveal lesser sloping inclusions that could be utilized. The seasonal high water table in areas of Becket soils may limit the absorption and proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The very steep slope of these soils impedes or prevents trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary. Routing new roads around this unit could save construction and maintenance costs. Depth to hard bedrock in areas of Tunbridge soils may limit site preparation such as shaping and grading and restrict installation of roads and streets. The seasonal high water table in areas of Becket soil impedes excavation and grading and reduces the bearing capacity of these soils. Installing a drainage system and adding suitable subgrade material to raise the roadbed may help reduce this limitation.

1293C—Skerry-Tunbridge complex, 3 to 15 percent slopes, rocky, very bouldery

Setting

This map unit is on gently sloping to strongly sloping side slopes and head slopes of bedrock controlled areas in the foothills of the Adirondack Mountains. Skerry soils have a firm, dense substratum.

Map Unit Composition

Major Components
Skerry, very bouldery: 55 percent
Tunbridge, very bouldery: 25 percent

Inclusions
Becket: 8 percent
Adirondack: 5 percent
Lyman: 5 percent
Sabattis: 1 percent
Rock outcrop: 1 percent

Included in mapping are areas of very deep Becket soils on more convex or higher positions than Skerry soils. Adirondack and Sabattis soils are included in wetter areas on toeslopes and along drainageways. Small areas of shallow to bedrock Lyman soils are included on crests of ridges or nose slopes.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Skerry, very bouldery: no
    Tunbridge, very bouldery: no
Hydrologic group:
    Skerry, very bouldery: C/D
    Tunbridge, very bouldery: C

Soil Properties and Qualities

Skerry, very bouldery
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
    0 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
    3 to 5 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
    5 to 7 inches: extremely acid to slightly acid (3.5 to 6.5)
    7 to 11 inches: extremely acid to slightly acid (3.5 to 6.5)
    11 to 17 inches: extremely acid to slightly acid (3.5 to 6.5)
    17 to 29 inches: extremely acid to slightly acid (3.5 to 6.5)
    29 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
    0 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    3 to 5 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)

5 to 7 inches: moderate (0.6 to 2 inches/hour)
7 to 11 inches: moderate (0.6 to 2 inches/hour)
11 to 17 inches: moderate (0.6 to 2 inches/hour)
17 to 29 inches: moderate (0.6 to 2 inches/hour)
29 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: moderately deep loamy till
Reaction (pH):
0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
22 inches, bedrock
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 4 inches: moderate (0.6 to 2 inches/hour)
4 to 5 inches: moderate (0.6 to 2 inches/hour)
5 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 22 inches: moderate (0.6 to 2 inches/hour)
22 inches, bedrock

Use and Management

Cropland

These soils are not suited for growing cultivated crops because of very bouldery surface conditions. The rooting depth of some crops may be restricted by bedrock. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

Very bouldery surface conditions may restrict the operation of farm machinery during pasture renovation. Erosion control is needed when pastures are renovated. Avoiding overgrazing will reduce potential soil erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- The Skerry component of this map unit has a seasonal high water table. The Tunbridge component of this map unit is moderately deep to bedrock. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Locating haul

roads on soils that are deeper to bedrock will help overcome construction limitations due to areas of moderately deep Tunbridge soils. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.

- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The depth to bedrock and hardness of the bedrock in areas of Tunbridge soils greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. The seasonal high water table severely limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance. The slope influences the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. The seasonal high water table and moderately deep dense material in Skerry part of this unit and moderately deep to bedrock Tunbridge soils limit the absorption and proper treatment of effluent from conventional septic systems. Some bedrock types have cracks and crevices that may allow inadequately treated effluent to enter and contaminate the groundwater. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table in areas of Skerry soil impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce this limitation. Depth to hard bedrock in areas of Tunbridge soils may limit site preparation such as shaping and grading and restrict installation of roads and streets. Strongly sloping areas of these soils impede trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

1380C—Becket-Skerry complex, 3 to 15 percent slopes, very bouldery

Setting

This unit is on gently sloping to strongly sloping till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components

Becket, very bouldery: 45 percent
Skerry, very bouldery: 40 percent

Inclusions

Adirondack: 5 percent
Monadnock: 3 percent
Adams: 2 percent
Colton: 1 percent
Unnamed: 4 percent

Included in mapping are areas of somewhat poorly drained Adirondack soils on slightly concave positions and along drainageways. Monadnock soils are included in areas where the dense substratum is deeper than 40 inches. Small areas of Adams and Colton soils are included as deposits of outwash sand and gravel.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
- Becket, very bouldery: no
- Skerry, very bouldery: no

Hydrologic group:
- Becket, very bouldery: C
- Skerry, very bouldery: C/D

Soil Properties and Qualities

Becket, very bouldery

Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 24 to 36 inches
- Water table kind: perched

Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from
igneous and metamorphic rock
Reaction (pH):
0 to 1 inch: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
1 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
3 to 5 inches: extremely acid to slightly acid (3.5 to 6.5)
5 to 8 inches: extremely acid to slightly acid (3.5 to 6.5)
8 to 15 inches: extremely acid to slightly acid (3.5 to 6.5)
15 to 26 inches: extremely acid to slightly acid (3.5 to 6.5)
26 to 38 inches: very strongly acid to neutral (4.5 to 7.3)
38 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 5 inches: moderate (0.6 to 2 inches/hour)
5 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 15 inches: moderate (0.6 to 2 inches/hour)
15 to 26 inches: moderate (0.6 to 2 inches/hour)
26 to 38 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
38 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Skerry, very bouldery
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from
igneous and metamorphic rock
Reaction (pH):
0 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
3 to 5 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
5 to 7 inches: extremely acid to slightly acid (3.5 to 6.5)
7 to 11 inches: extremely acid to slightly acid (3.5 to 6.5)
11 to 17 inches: extremely acid to slightly acid (3.5 to 6.5)
17 to 29 inches: extremely acid to slightly acid (3.5 to 6.5)
29 to 72 inches: very strongly acid to neutral (4.5 to 7.3)
Permeability:
0 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 5 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
5 to 7 inches: moderate (0.6 to 2 inches/hour)
7 to 11 inches: moderate (0.6 to 2 inches/hour)
11 to 17 inches: moderate (0.6 to 2 inches/hour)

17 to 29 inches: moderate (0.6 to 2 inches/hour)
29 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland

These soils are not suited for growing cultivated crops because of very bouldery surface conditions. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

Very bouldery surface conditions may restrict the operation of farm machinery during pasture renovation. Erosion control is needed when pastures are renovated. Avoiding overgrazing will reduce potential soil erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are limited by the seasonal high water table and very bouldery surface condition. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may

also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance. Strongly sloping areas of this unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through these soils may limit the absorption and proper treatment of effluent from conventional septic systems. The moderately deep dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of distribution lines. Surface boulders may impede excavation, system installation and traffic of heavy machinery. Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

1391C—Lyman-Tunbridge-Rock outcrop complex, 8 to 15 percent slopes, very bouldery

Setting

This strongly sloping map unit is on ridgetops and shoulders of bedrock controlled areas in the Adirondack Mountains.

Map Unit Composition

Major Components
Lyman, very bouldery: 40 percent
Tunbridge, very bouldery: 30 percent
Rock outcrop: 15 percent

Inclusions
Becket: 7 percent
Skerry: 6 percent
Adirondack: 2 percent

Included in mapping are areas of very deep Becket, Skerry and Adirondack soils on slopes between knobs and along drainageways.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Lyman, very bouldery: no
  Tunbridge, very bouldery: no
  Rock outcrop: no
Hydrologic group:
  Lyman, very bouldery: D
  Tunbridge, very bouldery: C
  Rock outcrop: D

Soil Properties and Qualities

Lyman, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low or low
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: 10 to 20 inches of loamy till
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
- 1 to 2 inches: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
- 14 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 3 inches: moderate (0.6 to 2 inches/hour)
- 3 to 4 inches: moderate (0.6 to 2 inches/hour)
- 4 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 14 inches: moderate (0.6 to 2 inches/hour)
- 14 inches, bedrock

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: loamy till
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
- 5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
- 22 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 3 to 4 inches: moderate (0.6 to 2 inches/hour)
- 4 to 5 inches: moderate (0.6 to 2 inches/hour)

5 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 22 inches: moderate (0.6 to 2 inches/hour)
22 inches, bedrock

Rock outcrop

Characteristics not defined for this component.

Use and Management

Cropland

These soils are not suited for growing cultivated crops because of the rock outcrops and very bouldery surface conditions.

Pasture

These soils are poorly suited for pasture because of rock outcrops and very bouldery surface conditions. Rock outcrops and large rock fragments on the surface may restrict the operation of farm machinery during pasture renovation. Erosion control is needed when pastures are renovated. Plants may suffer moisture stress during the drier summer months because of low available water capacity in areas of Lyman soils. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are limited by depth to bedrock and very bouldery surface conditions. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to shallow soils. Employing larger, more powerful machinery during construction and locating haul roads and log landings in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Excavation may be more feasible within inclusions of deeper soils. Strongly sloping areas of this unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of depth to bedrock, these soils are severely limited as a site for conventional septic tank absorption fields. Use of alternative systems may be possible in areas of deeper soil inclusions. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Because of strongly sloping areas, special design and installation techniques may

be needed for effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Depth to hard bedrock and rock outcrops limit site preparation such as shaping and grading and restrict installation of roads and streets. Blasting may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. Strongly sloping areas of this unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

1391D—Lyman-Tunbridge-Rock outcrop complex, 15 to 35 percent slopes, very bouldery

Setting

This map unit is on moderately steep and steep side slopes and ridges of bedrock controlled areas in the Adirondack Mountains.

Map Unit Composition

Major Components
Lyman, very bouldery: 45 percent
Tunbridge, very bouldery: 30 percent
Rock outcrop: 15 percent

Inclusions
Becket: 5 percent
Skerry: 2 percent
Unnamed: 3 percent

Included in mapping are areas of very deep Becket and Skerry soils on slopes between knobs and along drainageways.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
Lyman, very bouldery: no
Tunbridge, very bouldery: no
Rock outcrop: no
Hydrologic group:
Lyman, very bouldery: D
Tunbridge, very bouldery: C
Rock outcrop: D

Soil Properties and Qualities

Lyman, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none

Available water capacity: very low or low
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: 10 to 20 inches of loamy till
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
- 1 to 2 inches: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
- 14 inches, bedrock

Permeability
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 3 inches: moderate (0.6 to 2 inches/hour)
- 3 to 4 inches: moderate (0.6 to 2 inches/hour)
- 4 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 14 inches: moderate (0.6 to 2 inches/hour)
- 14 inches, bedrock

Tunbridge, very bouldery
Drainage class: well drained
Depth to bedrock: 20 to 40 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: loamy till
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 1 to 3 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)
- 5 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 22 inches: extremely acid to moderately acid (3.5 to 6.0)
- 22 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 3 to 4 inches: moderate (0.6 to 2 inches/hour)
- 4 to 5 inches: moderate (0.6 to 2 inches/hour)
- 5 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 22 inches: moderate (0.6 to 2 inches/hour)
- 22 inches, bedrock

Rock outcrop
Characteristics not defined for this component.

Use and Management

Cropland

These soils are not suited for growing cultivated crops because of the rock outcrops, very bouldery surface conditions and moderately steep and steep slopes.

Pasture

These soils are poorly suited for pasture because of rock outcrops, very bouldery surface conditions and moderately steep and steep slopes. The steep, very bouldery and very rocky slope inhibit the safe use of most farm equipment used in pasture renovation. Plants may suffer moisture stress during the drier summer months because of low available water capacity in the Lyman part of this unit. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are limited by moderately steep and steep slopes, depth to bedrock and very bouldery conditions. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to shallow soils. Employing larger, more powerful machinery during construction and locating haul roads and log landings in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The depth to bedrock and hardness of the bedrock greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Excavation may be more feasible within inclusions of deeper soils. The moderately steep and steep slopes adversely affect the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of shallow depth to bedrock and steep slopes, these soils are poorly suited as a site for conventional septic tank absorption fields. Use of alternative systems may be possible in areas of deeper and less sloping soil inclusions. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slopes of this unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Special designs may be necessary. Routing new roads around this map unit will help save construction and maintenance costs. Depth to hard bedrock limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary.

1580B—Adirondack-Skerry complex, 3 to 8 percent slopes, very bouldery

Setting

This gently sloping unit is on footslopes and toeslopes on till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components
Adirondack, very bouldery: 50 percent
Skerry, very bouldery: 30 percent

Inclusions
Tunbridge: 5 percent
Sabattis: 5 percent
Burnt Vly: 2 percent
Tughill: 1 percent
Unnamed: 7 percent

Included in mapping are areas of Tunbridge soils on bedrock controlled knolls and small hills. Also included are Sabattis, Burnt Vly, and Tughill soils on wetter areas that are subject to ponding.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Adirondack, very bouldery: no
  Skerry, very bouldery: no
Hydrologic group:
  Adirondack, very bouldery: C/D
  Skerry, very bouldery: C/D

Soil Properties and Qualities

Adirondack, very bouldery
Drainage class: somewhat poorly drained

Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 15 to 38 inches to densic material
Depth to seasonal high water table: 6 to 18 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
    0 to 2 inches: ultra acid or extremely acid (1.8 to 4.4 in CaCl2)
    2 to 4 inches: ultra acid or extremely acid (1.8 to 4.4 in CaCl2)
    4 to 6 inches: extremely acid to strongly acid (3.5 to 5.5)
    6 to 8 inches: extremely acid to strongly acid (3.5 to 5.5)
    8 to 9 inches: extremely acid to strongly acid (3.5 to 5.5)
    9 to 18 inches: extremely acid to strongly acid (3.5 to 5.5)
    18 to 26 inches: very strongly acid to moderately acid (4.5 to 6.0)
    26 to 34 inches: strongly acid or moderately acid (5.1 to 6.0)
    34 to 43 inches: strongly acid or moderately acid (5.1 to 6.0)
    43 to 72 inches: strongly acid or moderately acid (5.1 to 6.0)
Permeability:
    0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    2 to 4 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
    4 to 6 inches: moderate (0.6 to 2 inches/hour)
    6 to 8 inches: moderate (0.6 to 2 inches/hour)
    8 to 9 inches: moderate (0.6 to 2 inches/hour)
    9 to 18 inches: moderate (0.6 to 2 inches/hour)
    18 to 26 inches: moderate (0.6 to 2 inches/hour)
    26 to 34 inches: slow (0.06 to 0.2 inches/hour)
    34 to 43 inches: slow (0.06 to 0.2 inches/hour)
    43 to 72 inches: slow (0.06 to 0.2 inches/hour)

Skerry, very bouldery
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
    0 to 3 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
    3 to 5 inches: ultra acid to moderately acid (1.8 to 6.0 in CaCl2)
    5 to 7 inches: extremely acid to slightly acid (3.5 to 6.5)
    7 to 11 inches: extremely acid to slightly acid (3.5 to 6.5)
    11 to 17 inches: extremely acid to slightly acid (3.5 to 6.5)

17 to 29 inches: extremely acid to slightly acid (3.5 to 6.5)
29 to 72 inches: very strongly acid to neutral (4.5 to 7.3)

Permeability:
0 to 3 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
3 to 5 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
5 to 7 inches: moderate (0.6 to 2 inches/hour)
7 to 11 inches: moderate (0.6 to 2 inches/hour)
11 to 17 inches: moderate (0.6 to 2 inches/hour)
17 to 29 inches: moderate (0.6 to 2 inches/hour)
29 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland

These soils are not suited for growing cultivated crops because of very bouldery surface conditions and seasonal high water table. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

Very bouldery surface conditions and a seasonal high water table may restrict the operation of farm machinery during pasture renovation. Erosion control is needed when pastures are renovated. Avoiding overgrazing will reduce potential soil erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are limited by the seasonal high water table and very bouldery surface condition. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Avoiding construction of log landings during periods of seasonal saturation, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet. Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen. Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- The rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to seasonal wetness. Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of most areas of this map unit to bear a load without movement and causes wet basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through these soils greatly limit the absorption and proper treatment of effluent from conventional septic systems. The moderately deep dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of distribution lines. Surface boulders may impede excavation, system installation and traffic of heavy machinery. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

1591F—Lyman-Berkshire complex, 35 to 60 percent slopes, very rocky, very bouldery

Setting

This map unit is on ridges and very steep side slopes of bedrock controlled areas in the foothills of the Adirondack Mountains.

Map Unit Composition

Major Components

Lyman, very bouldery: 45 percent
Berkshire, very bouldery: 35 percent

Inclusions

Tunbridge: 8 percent
Becket: 5 percent
Rock outcrop: 5 percent
Unnamed: 2 percent

Included in mapping are areas of moderately deep to bedrock Tunbridge soils on upper side slopes and nose slopes. Becket soils are included on very deep side slopes having a dense substratum.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Lyman, very bouldery: no
  Berkshire, very bouldery: no
Hydrologic group:
  Lyman, very bouldery: D
  Berkshire, very bouldery: A

Soil Properties and Qualities

Lyman, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low or low
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: 10 to 20 inches of loamy till
Reaction (pH):
  0 to 1 inch: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
  1 to 2 inches: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
  2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
  3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
  4 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
  8 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
  14 inches, bedrock
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  2 to 3 inches: moderate (0.6 to 2 inches/hour)
  3 to 4 inches: moderate (0.6 to 2 inches/hour)
  4 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 14 inches: moderate (0.6 to 2 inches/hour)
  14 inches, bedrock

Berkshire, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: moraines, valley sides
Parent material: loamy till derived mainly from schist, granite and gneiss
Reaction (pH):
  0 to 2 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
  2 to 5 inches: extremely acid to moderately acid (3.5 to 6.0)

5 to 6 inches: extremely acid to moderately acid (3.5 to 6.0)
6 to 9 inches: extremely acid to moderately acid (3.5 to 6.0)
9 to 21 inches: extremely acid to moderately acid (3.5 to 6.0)
21 to 30 inches: extremely acid to moderately acid (3.5 to 6.0)
30 to 32 inches: extremely acid to moderately acid (3.5 to 6.0)
32 to 74 inches: extremely acid to moderately acid (3.5 to 6.0)

Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 5 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
5 to 6 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
6 to 9 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
9 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
21 to 30 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
30 to 32 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
32 to 74 inches: moderate or moderately rapid (0.6 to 6 inches/hour)

Use and Management

Cropland

These soils are not suited to growing cultivated crops because of the very steep slope, very bouldery surface conditions and rock outcrops.

Pasture

These soils are not suited for pasture because of very steep slope, very bouldery surface and rock outcrops.

Woodland

- Haul roads are limited by very steep slopes, depth to bedrock and very bouldery conditions. Avoiding construction of haul roads on slopes exceeding 35 percent is recommended. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to shallow soils. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions and very steep slopes.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The very steep slope and bedrock ledges seriously limit the safe use of machinery. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of the very steep slope and shallow bedrock, conventional septic systems will likely fail and special designs will be required. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The very steep slopes of this unit greatly impede trafficability of heavy machinery and significantly increase the difficulty and cost of building roads and streets. Blasting and special designs may be necessary. New roads should be routed around this map unit.

1911C—Potsdam-Lyman complex, 8 to 15 percent slopes, rocky, very bouldery

Setting

This map unit is on strongly sloping side slopes of bedrock controlled areas in the Adirondack Mountains. Potsdam soils have a firm, dense substratum.

Map Unit Composition

Major Components

Potsdam, very bouldery: 60 percent
Lyman, very bouldery: 25 percent

Inclusions

Crary: 5 percent
Adirondack: 3 percent
Monadnock: 3 percent
Tunbridge: 3 percent
Rock outcrop: 1 percent

Included in mapping are areas of moderately well drained Crary soils and somewhat poorly drained Adirondack soils on slightly concave positions and along drainageways. Very deep Monadnock soils are included where the substratum is friable. Inclusions of moderately deep Tunbridge soils occur on side slopes associated with rock outcrops.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
 Potsdam, very bouldery: no
 Lyman, very bouldery: no
Hydrologic group:
 Potsdam, very bouldery: C
 Lyman, very bouldery: D

Soil Properties and Qualities

Potsdam, very bouldery

Drainage class: well drained

Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: low hills
Parent material: silty eolian deposits over firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
- 0 to 2 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
- 2 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 10 inches: extremely acid to moderately acid (3.5 to 6.0)
- 10 to 13 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 13 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 19 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
- 25 to 28 inches: very strongly acid to neutral (4.5 to 7.3)
- 28 to 72 inches: strongly acid to slightly alkaline (5.1 to 7.8)

Permeability:
- 0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 10 inches: moderate (0.6 to 2 inches/hour)
- 10 to 13 inches: moderate (0.6 to 2 inches/hour)
- 13 to 19 inches: moderate (0.6 to 2 inches/hour)
- 19 to 25 inches: moderate (0.6 to 2 inches/hour)
- 25 to 28 inches: moderate (0.6 to 2 inches/hour)
- 28 to 72 inches: slow (0.06 to 0.2 inches/hour)

Lyman, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: low hills
Parent material: shallow loamy till
Reaction (pH):
- 0 to 1 inch: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
- 1 to 2 inches: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
- 2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
- 3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
- 4 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
- 14 inches, bedrock

Permeability:
- 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
- 2 to 3 inches: moderate (0.6 to 2 inches/hour)
- 3 to 4 inches: moderate (0.6 to 2 inches/hour)

4 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 14 inches: moderate (0.6 to 2 inches/hour)
14 inches, bedrock

Use and Management

Cropland

These soils are not suited for growing cultivated crops because of very bouldery surface conditions, rock outcrops and some areas that are droughty.

Pasture

Very bouldery surface conditions and rock outcrops may restrict the operation of farm machinery during pasture renovation. Erosion control is needed when pastures are renovated. Avoiding overgrazing will reduce potential soil erosion. Plants may suffer moisture stress during the drier summer months because of low available water capacity in areas of Lyman soils. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- The Lyman component of this map unit are shallow to bedrock and the map unit has a very bouldery surface. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to shallow soils. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Locating log landings in areas with fewer surface boulders or stones will help overcome construction and operational limitations due to very bouldery surface conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow Lyman soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The depth to bedrock and hardness of the bedrock in areas of shallow Lyman soils greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. The strongly sloping areas of this unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The Lyman part of this unit is very limited for this use. Because of the shallow depth to bedrock, Lyman soils are very limited as a site for conventional septic tank absorption fields. In the Potsdam part of this unit, the moderately deep dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of distribution lines. Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Depth to hard bedrock in the Lyman part of this unit limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. The strongly sloping areas of this unit impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

1911E—Potsdam-Lyman complex, 15 to 35 percent slopes, rocky, very bouldery

Setting

This map unit is on moderately steep and steep side slopes and ridges of bedrock controlled areas in the Adirondack Mountains. Potsdam soils have a firm, dense substratum.

Map Unit Composition

Major Components
Potsdam, very bouldery: 60 percent
Lyman, very bouldery: 25 percent

Inclusions
Becket: 5 percent
Monadnock: 3 percent
Tunbridge: 3 percent
Unnamed: 3 percent
Rock outcrop: 1 percent

Included in mapping are areas of Becket soils having less silt and very fine sand in the subsoil. Very deep Monadnock soils are included where the substratum is friable. Inclusions of moderately deep Tunbridge soils occur on side slopes associated with rock outcrops.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Potsdam, very bouldery: no
  Lyman, very bouldery: no
Hydrologic group:
  Potsdam, very bouldery: C
  Lyman, very bouldery: D

Soil Properties and Qualities

Potsdam, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: greater than 60 inches
Flooding: none

Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: silty eolian deposits over firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
0 to 2 inches: ultra acid to strongly acid (1.8 to 5.5 in CaCl2)
2 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
8 to 10 inches: extremely acid to moderately acid (3.5 to 6.0)
10 to 13 inches: very strongly acid to moderately acid (4.5 to 6.0)
13 to 19 inches: very strongly acid to moderately acid (4.5 to 6.0)
19 to 25 inches: very strongly acid to moderately acid (4.5 to 6.0)
25 to 28 inches: very strongly acid to neutral (4.5 to 7.3)
28 to 72 inches: strongly acid to slightly alkaline (5.1 to 7.8)
Permeability:
0 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 10 inches: moderate (0.6 to 2 inches/hour)
10 to 13 inches: moderate (0.6 to 2 inches/hour)
13 to 19 inches: moderate (0.6 to 2 inches/hour)
19 to 25 inches: moderate (0.6 to 2 inches/hour)
25 to 28 inches: moderate (0.6 to 2 inches/hour)
28 to 72 inches: slow (0.06 to 0.2 inches/hour)

Lyman, very bouldery
Drainage class: somewhat excessively drained
Depth to bedrock: 10 to 20 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: very low or low
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: hillside or mountainsides
Parent material: shallow loamy till
Reaction (pH):
0 to 1 inch: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
1 to 2 inches: ultra acid to strongly acid (2.0 to 5.5 in CaCl2)
2 to 3 inches: extremely acid to moderately acid (3.5 to 6.0)
3 to 4 inches: extremely acid to moderately acid (3.5 to 6.0)
4 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
8 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
14 inches, bedrock
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 2 inches: moderately slow to moderately rapid (0.2 to 6 inches/hour)
2 to 3 inches: moderate (0.6 to 2 inches/hour)
3 to 4 inches: moderate (0.6 to 2 inches/hour)
4 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 14 inches: moderate (0.6 to 2 inches/hour)
14 inches, bedrock

Use and Management

Cropland

These soils are not suited to growing cultivated crops because of the very bouldery surface conditions, rock outcrops and moderately steep and steep slopes.

Pasture

These soils are poorly suited for pasture because of moderately steep and steep slopes, very bouldery surface conditions and rock outcrops. Large rock fragments on the surface, rock outcrops and steep slopes restrict the safe operation of farm machinery used for pasture renovation. Erosion control is needed when pastures are renovated. The growing season may be shorter for these soils than for soils at lower elevations.

Woodland

- Haul roads are limited by shallow to bedrock Lyman soils and very bouldery surface conditions. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Locating haul roads on soils that are deep to bedrock will help overcome construction limitations due to shallow Lyman soils. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during periods of unusually wet conditions.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to shallow Lyman soils. Buffer systems may be useful in high risk topographic areas. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep and steep slope adversely affects the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance. The depth to bedrock and hardness of the bedrock in areas of Lyman soils greatly reduce the ease of excavation and increase the difficulty of constructing foundations and installing utilities. Some excavation may be possible in inclusions of deeper soils.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of the depth to bedrock, the Lyman part of this unit is very limited as a site for conventional septic tank absorption fields. In the Potsdam part of this unit, the moderately deep dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper

installation of effluent distribution lines. Because of the steep slope, special design and installation techniques are needed for distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. If surface rock fragments are removed, retaining the natural soil surface layer is particularly important where a restrictive soil feature limits the thickness of suitable soil material. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary. Depth to hard bedrock in areas of shallow Lyman soils limits site preparation such as shaping and grading and restricts installation of roads and streets. Blasting may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

1920B—Monadnock fine sandy loam, 3 to 8 percent slopes, very bouldery

Setting

This unit is on gently sloping till plains in the Adirondack foothills.

Map Unit Composition

Major Components

Monadnock, very bouldery: 75 percent

Inclusions

Adams: 7 percent
Becket: 5 percent
Colton: 5 percent
Skerry: 5 percent
Unnamed: 3 percent

Included in mapping are areas of Adams and Colton soils on sandy and gravelly outwash deposits. Inclusions of Becket and Skerry soils have dense substrata within 40 inches deep.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Monadnock, very bouldery: no
Hydrologic group:
  Monadnock, very bouldery: B

Soil Properties and Qualities

Monadnock, very bouldery

Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches

Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: moraines, valley sides
Parent material: a loamy mantle underlain by acid sandy and gravelly till derived mainly from crystalline rock
Reaction (pH):
 0 to 1 inch: extremely acid to strongly acid (3.5 to 5.5 in $CaCl_2$)
 1 to 2 inches: extremely acid to moderately acid (3.5 to 6.0)
 2 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
 7 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
 14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
 27 to 41 inches: extremely acid to moderately acid (3.5 to 6.0)
 41 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
 0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
 1 to 2 inches: moderate (0.6 to 2 inches/hour)
 2 to 7 inches: moderate (0.6 to 2 inches/hour)
 7 to 14 inches: moderate (0.6 to 2 inches/hour)
 14 to 27 inches: moderate (0.6 to 2 inches/hour)
 27 to 41 inches: moderately rapid (2 to 6 inches/hour)
 41 to 72 inches: moderately rapid (2 to 6 inches/hour)

Use and Management

Cropland

These soils are not suited to growing cultivated crops because of the very bouldery surface conditions. In areas where large surface stones are removed for cultivation, grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion. Using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These soils are poorly suited for pasture because of very bouldery surface conditions. Large rock fragments on the surface restrict the operation of farm machinery used for pasture renovation. Erosion control may be needed when pastures are renovated. The growing season may be shorter for these soils than for soils at lower elevations.

Woodland

- These soils are very bouldery. Employing larger, more powerful machinery during construction and locating haul roads and log landings in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control

structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

There are no major soil limitations for this use.

Septic Tank Absorption Fields

Surface boulders may impede excavation, system installation, and traffic of heavy machinery. The moderate rate of fluid movement through these soils may impede the absorption and proper treatment of effluent from conventional septic systems. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

1920C—Monadnock fine sandy loam, 8 to 15 percent slopes, very bouldery

Setting

This unit is on strongly sloping till plains in the Adirondack foothills.

Map Unit Composition

Major Components
Monadnock, very bouldery: 80 percent

Inclusions
Adams: 6 percent
Becket: 5 percent
Colton: 3 percent
Skerry: 1 percent
Unnamed: 5 percent

Included in mapping are areas of Adams and Colton soils on sandy and gravelly outwash deposits. Inclusions of Becket and Skerry soils have dense substrata within 40 inches deep.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Monadnock, very bouldery: no
Hydrologic group:
  Monadnock, very bouldery: B

Soil Properties and Qualities

Monadnock, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none

Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: moraines, valley sides
Parent material: a loamy mantle underlain by acid sandy and gravelly till derived mainly from crystalline rock
Reaction (pH):
  0 to 1 inch: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
  1 to 2 inches: extremely acid to moderately acid (3.5 to 6.0)
  2 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
  7 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
  14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
  27 to 41 inches: extremely acid to moderately acid (3.5 to 6.0)
  41 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
  0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
  1 to 2 inches: moderate (0.6 to 2 inches/hour)
  2 to 7 inches: moderate (0.6 to 2 inches/hour)
  7 to 14 inches: moderate (0.6 to 2 inches/hour)
  14 to 27 inches: moderate (0.6 to 2 inches/hour)
  27 to 41 inches: moderately rapid (2 to 6 inches/hour)
  41 to 72 inches: moderately rapid (2 to 6 inches/hour)

Use and Management

Cropland

These soils are not suited to growing cultivated crops because of the very bouldery surface and strongly sloping conditions. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These soils are poorly suited for pasture because of very bouldery surface conditions. Large rock fragments on the surface restrict the operation of farm machinery used for pasture renovation. Erosion control is needed when pastures are renovated. The growing season may be shorter for these soils than for soils at lower elevations.

Woodland

- These soils are very bouldery. Employing larger, more powerful machinery during construction and locating haul roads and log landings in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The strongly sloping areas influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

Surface boulders may impede excavation, system installation, and traffic of heavy machinery. The moderate rate of fluid movement through these soils may impede the absorption and proper treatment of effluent from conventional septic systems. Because of strongly sloping areas, special design and installation techniques may be needed for the effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

1920E—Monadnock fine sandy loam, 15 to 35 percent slopes, very bouldery

Setting

This unit is on moderately steep and steep till plains in the Adirondack foothills.

Map Unit Composition

Major Components
Monadnock, very bouldery: 80 percent

Inclusions
Adams: 9 percent
Becket: 5 percent
Colton: 5 percent
Skerry: 1 percent

Included in mapping are areas of Adams and Colton soils on sandy and gravelly outwash deposits. Inclusions of Becket and Skerry soils have dense substrata within 40 inches deep.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Monadnock, very bouldery: no
Hydrologic group:
  Monadnock, very bouldery: B

Soil Properties and Qualities

Monadnock, very bouldery
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: greater than 60 inches
Flooding: none
Available water capacity: moderate
Potential frost action: moderate

Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: moraines, valley sides
Parent material: a loamy mantle underlain by acid sandy and gravelly till derived mainly from crystalline rock
Reaction (pH):
0 to 1 inch: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
1 to 2 inches: extremely acid to moderately acid (3.5 to 6.0)
2 to 7 inches: extremely acid to moderately acid (3.5 to 6.0)
7 to 14 inches: extremely acid to moderately acid (3.5 to 6.0)
14 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
27 to 41 inches: extremely acid to moderately acid (3.5 to 6.0)
41 to 72 inches: extremely acid to moderately acid (3.5 to 6.0)
Permeability:
0 to 1 inch: moderately slow to moderately rapid (0.2 to 6 inches/hour)
1 to 2 inches: moderate (0.6 to 2 inches/hour)
2 to 7 inches: moderate (0.6 to 2 inches/hour)
7 to 14 inches: moderate (0.6 to 2 inches/hour)
14 to 27 inches: moderate (0.6 to 2 inches/hour)
27 to 41 inches: moderately rapid (2 to 6 inches/hour)
41 to 72 inches: moderately rapid (2 to 6 inches/hour)

Use and Management

Cropland

These soils are not suited to growing cultivated crops because of the very bouldery surface conditions and moderately steep and steep slopes. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

These soils are poorly suited for pasture because of very bouldery surface conditions and moderately steep and steep slopes. Large rock fragments on the surface and steep slopes restrict the safe operation of farm machinery used for pasture renovation. Erosion control is needed when pastures are renovated. The growing season may be shorter for these soils than for soils at lower elevations.

Woodland

- Haul roads are limited by moderately steep and steep slopes and very bouldery surface conditions. Maintaining road grades of 10 percent or less, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes. Employing larger, more powerful machinery during construction and locating haul roads and log landings in areas with fewer surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Careful planning and preparation of skid trails and operation of large rubber tired skidding equipment may help overcome harvest equipment operability limitations due to very bouldery surface conditions.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations. Riparian setbacks should be at least 150 feet.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment

control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The moderately steep and steep slopes adversely affect the safe use of machinery and the ease of excavation. Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of the moderately steep and steep slope, conventional septic systems may fail. Special design and installation techniques are needed for effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Surface boulders may impede excavation, system installation, and traffic of heavy machinery. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Special designs may be necessary. Routing new roads around this unit may lower construction and maintenance costs. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

1941A—Sabattis mucky loam, 0 to 3 percent slopes, very bouldery

Setting

This nearly level map unit is in depressions and along drainageways in the Adirondack foothills.

Map Unit Composition

Major Components

Sabattis, very bouldery: 75 percent

Inclusions

Adirondack: 6 percent
Burnt Vly: 5 percent
Pillsbury: 5 percent
Tughill: 5 percent
Searsport: 2 percent
Monadnock: 1 percent
Tunbridge: 1 percent

Included in mapping are areas of somewhat poorly drained Adirondack and Pillsbury soils and well drained Monadnock soils on slightly higher or more convex positions. Very poorly drained Burnt Vly soils are included in areas where there are more than 16 inches of surface organic deposits. Very poorly drained Searsport soils are underlain by sand. Small areas of Tughill soils are included in gravelly areas within depressions and toeslopes. Inclusions of moderately deep Tunbridge soils are included in association with bedrock controlled knobs.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 5w
Hydric soil rating:
    Sabattis, very bouldery: yes
Hydrologic group:
    Sabattis, very bouldery: C/D

Soil Properties and Qualities

Sabattis, very bouldery
Drainage class: very poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 0 inches
    Water table kind: apparent
    Ponding: frequent
Flooding: none
Available water capacity: high
Potential frost action: high
Shrink-swell potential: low
Surface fragment cover: very bouldery
Landform: depressions
Parent material: mucky loamy till
Reaction (pH):
    0 to 8 inches: extremely acid to moderately acid (3.5 to 6.0 in CaCl2)
    8 to 11 inches: very strongly acid to neutral (4.5 to 7.3)
    11 to 21 inches: strongly acid to neutral (5.1 to 7.3)
    21 to 31 inches: strongly acid to slightly alkaline (5.1 to 7.8)
    31 to 37 inches: strongly acid to slightly alkaline (5.1 to 7.8)
    37 to 72 inches: strongly acid to slightly alkaline (5.1 to 7.8)
Permeability:
    0 to 8 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    8 to 11 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    11 to 21 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
    21 to 31 inches: moderately slow or moderate (0.2 to 2 inches/hour)
    31 to 37 inches: moderately slow or moderate (0.2 to 2 inches/hour)
    37 to 72 inches: moderately slow or moderate (0.2 to 2 inches/hour)

Use and Management

This map unit may contain important wetland habitat. Federal, State, and local regulations should be considered before draining or altering this area.

Cropland

These soils are not suited to cultivated crops due to ponding and surface boulders.

Pasture

These soils are not suited to pasture due to ponding and very bouldery surface conditions.

Woodland

- Haul roads are limited by ponding and very bouldery surface conditions. Locating roads on better drained soils or limiting road construction to drier parts of the year will help overcome construction limitations of haul roads due to wetness. Consult the Water Features table for months of seasonal saturation. Employing larger, more powerful machinery during construction and locating haul roads in areas with fewer

surface boulders or stones will help overcome construction limitations due to very bouldery surface conditions.
- Areas of soils with thick organic surfaces and subject to ponding should be avoided when locating log landings.
- Limiting timber harvesting operations to winter months when the ground is frozen is recommended for soils with thick organic surfaces and low bearing strength.
- Managing for more wetness tolerant species will help overcome seedling mortality limitations due to ponding. Consult the Forestland Productivity table 'Trees to Manage' section for recommended species.
- Special forest management regulations may apply to wetland areas. In addition, special state and regional regulations may apply to construction or timber harvesting of any kind in wetland areas.

Dwellings with Basements

Other sites should be considered for this use. Because of the potential for ponding, these soils are not suitable as a site for dwellings with basements. The period when excavations can be made is brief and intensive construction site development and building maintenance may be needed.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of ponding, these soils are not suitable for conventional septic tank absorption fields.

Local Roads and Streets

These soils are very limited for local roads and streets due to the potential for ponding. Seasonal ponding affects the ease of excavation and grading and limits the bearing capacity of the soil. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce this limitation.

2170B—Henniker fine sandy loam, 3 to 8 percent slopes, very stony

Setting

This unit is on gently sloping till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components

Henniker, very stony: 75 percent

Inclusions

Metacomet: 9 percent
Skerry: 6 percent
Becket: 5 percent
Monadnock: 2 percent
Pillsbury: 2 percent
Unnamed: 1 percent

Included in mapping are areas of moderately well drained Metacomet soils and somewhat poorly drained Pillsbury soils in slightly lower positions and along drainageways. Inclusions of Skerry, Becket and Monadnock soils occur where the subsoil has significant development of spodic material.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
Henniker, very stony: no
Hydrologic group:
Henniker, very stony: C

Soil Properties and Qualities

Henniker, very stony
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 28 to 40 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very stony
Landform: till plains
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
2 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
8 to 20 inches: very strongly acid to moderately acid (4.5 to 6.0)
20 to 31 inches: very strongly acid to moderately acid (4.5 to 6.0)
31 to 52 inches: strongly acid or moderately acid (5.1 to 6.0)
52 to 72 inches: strongly acid to slightly acid (5.1 to 6.5)
Permeability:
0 to 2 inches: moderately rapid (2 to 6 inches/hour)
2 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 20 inches: moderate (0.6 to 2 inches/hour)
20 to 31 inches: moderate (0.6 to 2 inches/hour)
31 to 52 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
52 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland

Large rock fragments on the surface generally make tillage impractical. In areas where stones can be removed, using a system of conservation tillage and planting cover crops may reduce the runoff rate and help to minimize soil loss by erosion. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation. Erosion control is needed when pastures are renovated. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads may be affected by seepage water flowing above the dense substratum of these soils during early spring each year. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal saturation.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table that is perched on the dense substratum may cause seepage into basements during the spring. Structures may need special design to avoid damage from wetness.

Septic Tank Absorption Fields

The seasonal high water table in some areas of these soils during spring may limit the absorption and proper treatment of the effluent from conventional septic systems. These moderately deep soils over a dense material tend to have limited filtering capacity and the dense substratum may impede the proper installation of effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

2170C—Henniker fine sandy loam, 8 to 15 percent slopes, very stony

Setting

This unit is on strongly sloping till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components

Henniker, very stony: 80 percent

Inclusions

Becket: 8 percent
Metacomet: 5 percent
Skerry: 3 percent
Monadnock: 2 percent

Pillsbury: 1 percent
Unnamed, stony: 1 percent

Included in mapping are areas of Skerry, Becket and Monadnock soils where the subsoil has significant development of spodic material. Inclusions of moderately well drained Metacomet soils and somewhat poorly drained Pillsbury soils occur in slightly lower positions and along drainageways.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
Henniker, very stony: no
Hydrologic group:
Henniker, very stony: C

Soil Properties and Qualities

Henniker, very stony
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 28 to 40 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very stony
Landform: till plains
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
2 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
8 to 20 inches: very strongly acid to moderately acid (4.5 to 6.0)
20 to 31 inches: very strongly acid to moderately acid (4.5 to 6.0)
31 to 52 inches: strongly acid or moderately acid (5.1 to 6.0)
52 to 72 inches: strongly acid to slightly acid (5.1 to 6.5)
Permeability:
0 to 2 inches: moderately rapid (2 to 6 inches/hour)
2 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 20 inches: moderate (0.6 to 2 inches/hour)
20 to 31 inches: moderate (0.6 to 2 inches/hour)
31 to 52 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
52 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
Large rock fragments on the surface and strongly sloping conditions generally make tillage impractical. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation. Erosion control is needed when pastures are

renovated. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are subject to erosion on these strongly sloping areas. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal saturation.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table that is perched on the dense substratum may cause seepage into basements during the spring. These strongly sloping soils may cause safety concerns in the use of machinery and adversely affect the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The depth to dense material and water seepage over the dense substratum during spring reduce the filtering capacity of these soils and may greatly increase the difficulty of properly installing effluent distribution lines. The moderate to slow rate of fluid movement through these soils may impede the absorption and proper treatment of effluent from conventional septic systems. Because of these strongly sloping areas, special design and installation techniques may be required. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation. The slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

2170E—Henniker fine sandy loam, 15 to 35 percent slopes, very stony

Setting

This unit is on moderately steep and steep till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components
Henniker, very stony: 85 percent

Inclusions
Becket: 6 percent
Monadnock: 5 percent
Metacomet: 3 percent
Skerry: 1 percent

Included in mapping are areas of Becket, Skerry and Monadnock soils where the subsoil has significant development of spodic material. Inclusions of moderately well drained Metacomet soils occur in slightly concave positions and along drainageways.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 7s
Hydric soil rating:
  Henniker, very stony: no
Hydrologic group:
  Henniker, very stony: C

Soil Properties and Qualities

Henniker, very stony
Drainage class: well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 40 inches to densic material
Depth to seasonal high water table: 28 to 40 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very stony
Landform: till plains
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
  0 to 2 inches: extremely acid to strongly acid (3.5 to 5.5 in CaCl2)
  2 to 8 inches: very strongly acid to moderately acid (4.5 to 6.0)
  8 to 20 inches: very strongly acid to moderately acid (4.5 to 6.0)
  20 to 31 inches: very strongly acid to moderately acid (4.5 to 6.0)
  31 to 52 inches: strongly acid or moderately acid (5.1 to 6.0)
  52 to 72 inches: strongly acid to slightly acid (5.1 to 6.5)
Permeability:
  0 to 2 inches: moderately rapid (2 to 6 inches/hour)
  2 to 8 inches: moderate (0.6 to 2 inches/hour)
  8 to 20 inches: moderate (0.6 to 2 inches/hour)
  20 to 31 inches: moderate (0.6 to 2 inches/hour)
  31 to 52 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
  52 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland

Large rock fragments on the surface and moderately steep and steep slope generally make tillage impractical.

Pasture

This unit is moderately steep and steep. Erosion control is needed when pastures are renovated. Large rock fragments on the surface and steep slope can inhibit the safe operation of some farm machinery during pasture renovation. The growing season may be shorter for these soils than for soils at lower elevations.

Woodland

- Haul roads are subject to seepage in the spring and erosion on these moderately steep and steep slopes. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness. Maintaining proper grades, installing properly spaced drainage structures, outsloping the roads, and reseeding bare surfaces will help overcome construction and maintenance limitations of haul roads due to steep slopes.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness.
- Practices that will help minimize erosion include: carefully locating major skid trails prior to logging operations, with grades not exceeding 10 percent; avoiding skidding up and downslopes perpendicular to the contour; constructing and maintaining properly spaced water breaks on major skid trails and reseeding after logging operations.
- The rutting hazard can be minimized by traversing slopes on skid trails with grades not exceeding 10 percent and avoiding skidding operations during the spring.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be severe problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

Other sites should be considered for this use. The moderately steep and steep slope causes safety concerns in use of machinery and adversely affects ease of excavation. Water seepage over the dense substratum may influence when excavations can take place and result in wet basements Special building practices and designs are required to ensure satisfactory performance.

Septic Tank Absorption Fields

Other sites should be considered for this use. Because of moderately steep and steep conditions, conventional septic systems will likely fail and special design and installation techniques will be needed for effluent distribution lines. Onsite investigation may reveal lesser sloping inclusions that could be utilized. Water seepage in the spring may limit the absorption and proper treatment of effluent from conventional septic systems. Also, the moderately deep dense substratum adversely affects the filtering capacity of these soils and may greatly increase the difficulty of proper installation

of distribution lines. Onsite investigation is needed to evaluate possible health and environmental risks.

Local Roads and Streets

The moderately steep and steep slope of these soils impedes trafficability of heavy machinery and increases the difficulty and cost of building roads. Special designs, including routing of roads along the contour, may be necessary. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and supplemental drainage can help reduce this limitation.

2171B—Metacomet fine sandy loam, 3 to 8 percent slopes, very stony

Setting

This unit is on gently sloping till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components
Metacomet, very stony: 80 percent

Inclusions
Pillsbury: 8 percent
Skerry: 5 percent
Henniker: 3 percent
Adirondack: 2 percent
Unnamed: 2 percent

Included in mapping are areas of somewhat poorly drained Pillsbury soils on slightly concave positions, and well drained Henniker soils on more concave positions. Skerry and Adirondack soils are included where the subsoil has more spodic material or reddish brown, iron enrichment.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
    Metacomet, very stony: no
Hydrologic group:
    Metacomet, very stony: C/D

Soil Properties and Qualities

Metacomet, very stony
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
    Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low

Surface fragment cover: very stony
Landform: till plains
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
- 0 to 2 inches: very strongly acid to neutral (4.5 to 7.3 in CaCl2)
- 2 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
- 8 to 20 inches: extremely acid to moderately acid (3.5 to 6.0)
- 20 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
- 27 to 31 inches: strongly acid to slightly acid (5.1 to 6.5)
- 31 to 45 inches: strongly acid to slightly acid (5.1 to 6.5)
- 45 to 72 inches: strongly acid to slightly acid (5.1 to 6.5)

Permeability:
- 0 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
- 2 to 8 inches: moderate (0.6 to 2 inches/hour)
- 8 to 20 inches: moderate (0.6 to 2 inches/hour)
- 20 to 27 inches: moderate (0.6 to 2 inches/hour)
- 27 to 31 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
- 31 to 45 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
- 45 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland

Large rock fragments on the surface generally make tillage impractical.The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation. Erosion control is needed when pastures are renovated. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are limited by the seasonal high water table. Avoiding construction during periods of seasonal wetness and adequate design of drainage features such as water bars and ditches will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness.
- Restricting harvesting operations during months of seasonal wetness, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover will help reduce the rutting hazard.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table may limit the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness and seepage of water into the basement. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate rate of fluid movement through these soils may limit the absorption and proper treatment of effluent from conventional septic systems. The moderate depth to dense material can limit the filtering capacity of these soils and the dense substratum may cause difficult installation of distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

2171C—Metacomet fine sandy loam, 8 to 15 percent slopes, very stony

Setting

This unit is on strongly sloping till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components

Metacomet, very stony: 80 percent

Inclusions

Henniker: 6 percent
Pillsbury: 5 percent
Skerry: 5 percent
Adirondack: 2 percent
Unnamed: 2 percent

Included in mapping are areas of well drained Henniker soils on more convex positions, and somewhat poorly drained Pillsbury soils on slightly concave positions. Skerry and Adirondack soils are included where the subsoil has more spodic material or reddish brown, iron enrichment.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
Metacomet, very stony: no

Hydrologic group:
Metacomet, very stony: C/D

Soil Properties and Qualities

Metacomet, very stony
Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 38 inches to densic material
Depth to seasonal high water table: 18 to 30 inches
Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: moderate
Shrink-swell potential: low
Surface fragment cover: very stony
Landform: till plains
Parent material: friable loamy till underlain by firm sandy lodgment till derived from igneous and metamorphic rock
Reaction (pH):
0 to 2 inches: very strongly acid to neutral (4.5 to 7.3 in CaCl2)
2 to 8 inches: extremely acid to moderately acid (3.5 to 6.0)
8 to 20 inches: extremely acid to moderately acid (3.5 to 6.0)
20 to 27 inches: extremely acid to moderately acid (3.5 to 6.0)
27 to 31 inches: strongly acid to slightly acid (5.1 to 6.5)
31 to 45 inches: strongly acid to slightly acid (5.1 to 6.5)
45 to 72 inches: strongly acid to slightly acid (5.1 to 6.5)
Permeability:
0 to 2 inches: moderate or moderately rapid (0.6 to 6 inches/hour)
2 to 8 inches: moderate (0.6 to 2 inches/hour)
8 to 20 inches: moderate (0.6 to 2 inches/hour)
20 to 27 inches: moderate (0.6 to 2 inches/hour)
27 to 31 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
31 to 45 inches: slow or moderately slow (0.06 to 0.6 inches/hour)
45 to 72 inches: slow or moderately slow (0.06 to 0.6 inches/hour)

Use and Management

Cropland
Large rock fragments on the surface generally make tillage impractical. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture
Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation. Erosion control is needed when pastures are renovated. Avoiding overgrazing can alleviate the risk of soil erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland
- Haul roads are limited by seasonal wetness. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained

base material will help overcome suitability limitations due to seasonal wetness. Riparian setbacks should be at least 200 feet.
- Avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen will help overcome harvest equipment operability limitations due to wetness.
- The rutting hazard can be overcome by restricting harvesting operations during spring, logging when the ground is frozen, careful layout of skid trails to minimize the number of passes, using tracked instead of rubber tired skidders, and maintaining slash cover.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may also restrict the period when excavations can be made and require a higher degree of construction development and building maintenance. Strongly sloping areas of this unit influence the safe use of machinery and the ease of excavation. Special building practices and designs may be required to ensure satisfactory performance.

Septic Tank Absorption Fields

The seasonal high water table and the moderate to slow rate of fluid movement through these soils may limit the absorption and proper treatment of effluent from conventional septic systems. The moderately deep dense material reduces the filtering capacity of these soils and may greatly increase the difficulty of proper installation of distribution lines. Because of strongly sloping areas, special design and installation techniques may be needed for effluent distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations. Strongly sloping areas impede trafficability of heavy machinery and increase the difficulty and cost of building roads and streets. Placing roads on the contour can help overcome this limitation.

2172B—Pillsbury fine sandy loam, 3 to 8 percent slopes, very stony

Setting

This unit is on gently sloping toeslopes and side slopes of till plains in the Adirondack foothills. It has a firm, dense substratum.

Map Unit Composition

Major Components
Pillsbury, very stony and somewhat poorly drained phase: 75 percent

Inclusions
Pillsbury, poorly drained phase: 8 percent
Adirondack: 5 percent
Metacomet: 5 percent
Skerry: 3 percent
Henniker: 2 percent
Sabattis: 2 percent

Included in mapping are areas of poorly drained Pillsbury soils and very poorly drained Sabattis soils in depressions and along drainageways. Small areas of Adirondack and Skerry soils occur where the subsoil has substantial development of spodic material. Inclusions of moderately well drained Metacomet and well drained Henniker soils are included on knolls or other slightly higher positions.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: 6s
Hydric soil rating:
  Pillsbury, very stony: no
Hydrologic group:
  Pillsbury, very stony: C/D

Soil Properties and Qualities

Pillsbury, very stony
Drainage class: somewhat poorly drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: 20 to 36 inches to densic material
Depth to seasonal high water table: 10 to 18 inches
  Water table kind: perched
Flooding: none
Available water capacity: moderate
Potential frost action: high
Shrink-swell potential: low
Surface fragment cover: very stony
Landform: toeslopes of till plains
Parent material: loamy lodgment till
Reaction (pH):
  0 to 5 inches: very strongly acid or strongly acid (4.5 to 5.5)
  5 to 17 inches: very strongly acid or strongly acid (4.5 to 5.5)
  17 to 26 inches: very strongly acid or strongly acid (4.5 to 5.5)
  26 to 33 inches: very strongly acid or strongly acid (4.5 to 5.5)
  33 to 72 inches: very strongly acid to moderately acid (4.5 to 6.0)
Permeability:
  0 to 5 inches: moderate (0.6 to 2 inches/hour)
  5 to 17 inches: moderate (0.6 to 2 inches/hour)
  17 to 26 inches: moderate (0.6 to 2 inches/hour)
  26 to 33 inches: moderate (0.6 to 2 inches/hour)
  33 to 72 inches: slow (0.06 to 0.2 inches/hour)

Use and Management

Cropland

Large rock fragments on the surface generally make tillage impractical. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or early-maturing crop varieties is recommended.

Pasture

Large rock fragments on the surface may restrict the operation of some farm machinery during pasture renovation. Erosion control is needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion. The growing season may be shorter for these soils than for soils at lower elevations. The use of short-season or frost-tolerant plant species is recommended.

Woodland

- Haul roads are limited by the seasonal high water table. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness.
- Harvest equipment operability limitations due to wetness can be overcome by avoiding timber harvesting during periods of seasonal wetness or logging during winter months when soils are frozen.
- Rutting hazard can be minimized by restricting harvesting operations during months of seasonal wetness or logging when the ground is frozen, carefully locating major skid trails and winching logs to them to reduce the skidder footprint, and using tracked skidders.
- Selective harvesting systems that minimize canopy openings and reduce root system damage and maintenance of buffers around the upland edges may help overcome windthrow hazard due to wetness.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table severely limits the capacity of these soils to bear a load without movement and causes wetness in basements. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

Other sites should be considered for this use. The seasonal high water table in these soils greatly limits the absorption and proper treatment of the effluent from conventional septic systems. Because of the depth to dense material, the filtering capacity of these soils is minimal and the dense substratum may also cause difficult installation of distribution lines. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table impedes excavation and grading and reduces the bearing capacity of these soils. Also, local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce these limitations.

DeB—Deerfield loamy fine sand, undulating

Setting

This unit is on gently sloping outwash plains, deltas and terraces near Saratoga County in the Mohawk Valley. Slope ranges from 3 to 8 percent.

Map Unit Composition

Major Components
Deerfield: 75 percent

Inclusions
Oakville: 10 percent
Claverack: 7 percent
Wareham, somewhat poorly drained phase: 4 percent
Wareham, poorly drained phase: 4 percent

Included in mapping are areas of excessively drained Oakville soils on convex positions. Small areas of Claverack soils occur where clayey deposits are within 40 inches deep. Also included are Wareham soils along drainageways and in slight depressions.

Interpretive Groups

Farmland class: farmland of statewide importance
Land capability classification: 2w
Hydric soil rating:
  Deerfield: no
Hydrologic group:
  Deerfield: A

Soil Properties and Qualities

Drainage class: moderately well drained
Depth to bedrock: greater than 60 inches
Depth to root-restrictive feature: none within 60 inches
Depth to seasonal high water table: 18 to 36 inches
  Water table kind: apparent
Flooding: none
Available water capacity: low
Potential frost action: moderate
Shrink-swell potential: low
Landform: proglacial deltas, proglacial outwash plains, proglacial terraces
Parent material: sandy glaciofluvial or deltaic deposits derived mainly from granite, gneiss, or sandstone
Reaction (pH):
  0 to 10 inches: very strongly acid to slightly acid (4.5 to 6.5)
  10 to 14 inches: very strongly acid to slightly acid (4.5 to 6.5)
  14 to 26 inches: very strongly acid to slightly acid (4.5 to 6.5)

26 to 44 inches: very strongly acid to slightly acid (4.5 to 6.5)
44 to 72 inches: very strongly acid to slightly acid (4.5 to 6.5)

Permeability:
0 to 10 inches: moderately rapid or rapid (2 to 20 inches/hour)
10 to 14 inches: rapid (6 to 20 inches/hour)
14 to 26 inches: rapid (6 to 20 inches/hour)
26 to 44 inches: very rapid (20 to 100 inches/hour)
44 to 72 inches: very rapid (20 to 100 inches/hour)

Use and Management

Cropland

This soil is limited to growing cultivated crops because of low available water capacity and a seasonal high water table. Subsurface drainage in low areas may extend the period of planting and harvesting of crops. Plants may suffer from moisture stress during drier summer months because of the limited available water capacity. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to retain moisture. Grassed waterways can be used in some areas to slow and direct the movement of water and reduce erosion.

Pasture

These soils are well suited to pasture. Plants may suffer moisture stress during the drier summer months because of low available water capacity.

Erosion control may be needed when pastures are renovated. Avoiding overgrazing can reduce the hazard of erosion and allow for re-growth of forage.

Woodland

- Haul roads are limited by a seasonal high water table. Avoiding construction during periods of seasonal wetness, adequate design of drainage features such as water bars and ditches, and maintaining grades of 3 to 10 percent will help overcome construction limitations of haul roads due to seasonal wetness. Consult the Water Features table for months of seasonal wetness.
- Avoiding construction of log landings during periods of seasonal wetness, adequate design of drainage features such as diversion ditches, and applying coarse-grained base material will help overcome suitability limitations due to seasonal wetness.
- Selective harvesting systems that maintain enough canopy to prevent additional wind damage to residual trees will help overcome windthrow hazard due to seasonal wetness. Plans for periodic salvaging of windthrow trees and maintenance of permanent road and trail systems are advisable.
- Managing for more drought tolerant timber species will help overcome seedling mortality limitations due to low water holding capacity in these soils.
- Consult the Forestland Productivity table ‘Trees to Manage’ section for recommended species.

Development

Erosion and sediment control can be problems where this map unit is cleared for development. Minimizing soil disturbance, erecting erosion and sediment control structures, and stabilizing the soil surface with mulch and vegetation immediately following construction are practices that will help reduce these problems.

Dwellings with Basements

The seasonal high water table limits the capacity of these soils to bear a load without movement. Special design of structures is needed to prevent damage caused by wetness. The seasonal high water table may restrict the period when excavations can be made and require a higher degree of construction development and building maintenance.

Septic Tank Absorption Fields

The seasonal high water table in these soils may limit the absorption and proper treatment of effluent from conventional septic systems. Excessive rates of water movement or seepage through parts of the soil substrata may limit the proper treatment of effluent from conventional septic systems. Poorly treated effluent may pollute the ground water. Onsite investigation is needed to determine the suitability of these soils for particular systems and to evaluate possible health and environmental risks.

Local Roads and Streets

The seasonal high water table may impede excavation and grading and reduces the bearing capacity of these soils. Local roads and streets may be damaged by frost action, which is caused by the freezing and thawing of soil moisture. The addition of coarse-textured subgrade material and adequate drainage can help reduce this limitation.

GP—Pits, sand and gravel

Setting

This unit represents mining areas of sand and gravel. It is mostly in the Mohawk Valley, but also occurs in the foothills of the Adirondack Mountains. These pits are mostly nearly level on the floor of the pit, but range up to very steep.

Map Unit Composition

Major Components

Pits, sand and gravel: 80 percent

Inclusions

Alton: 5 percent
Hinckley: 5 percent
Merrimac: 5 percent
Windsor: 5 percent

Included with this unit in mapping are areas of Alton, Hinckley, Merrimac and Windsor soils where the ABC soil profile is present and little or no disturbance to the topsoil has occurred during mining operations.

Interpretive Groups

Farmland class: not prime farmland
Land capability classification: not assigned
Hydric soil rating:
Pits, sand and gravel: unranked
Hydrologic group:
Pits, sand and gravel: not assigned

Soil Properties and Qualities

This component is too variable to define the range of characteristics.

Use and Management

Onsite investigation is needed to determine the suitability for specific uses.

Use and Management of the Soils

The Fulton County soil survey is an inventory and evaluation of the soils in the survey area. It can be used to adjust land uses to the limitations and potentials of natural resources and the environment. Also, it can help to prevent soil-related failures in land uses.

In preparing a soil survey, soil scientists, conservationists, engineers, and others collect extensive field data about the nature and behavioral characteristics of the soils. They collect data on erosion, droughtiness, flooding, and other factors that affect various soil uses and management. Field experience and collected data on soil properties and performance are used as a basis in predicting soil behavior.

Information in this section can be used to plan the use and management of soils for crops and pasture; as forestland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreational facilities; for agricultural waste management; and as wildlife habitat. It can be used to identify the potentials and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment in all or part of the survey area. The survey can help planners to maintain or create a land use pattern in harmony with the natural soil.

Contractors can use this survey to locate sources of roadfill and topsoil. They can use it to identify areas where bedrock, wetness, or very firm soil layers can cause difficulty in excavation.

Health officials, highway officials, engineers, and others may also find this survey useful. The survey can help them plan the safe disposal of wastes and locate sites for pavements, sidewalks, campgrounds, playgrounds, lawns, and trees and shrubs.

Interpretive Ratings

The interpretive tables in this survey rate the soils in the survey area for various uses. Many of the tables identify the limitations that affect specified uses and indicate the severity of those limitations. The ratings in these tables are both verbal and numerical.

Rating Class Terms

Rating classes are expressed in the tables in terms that indicate the extent to which the soils are limited by all of the soil features that affect a specified use or in terms that indicate the suitability of the soils for the use. Thus, the tables may show limitation classes or suitability classes. Terms for the limitation classes are *not limited, somewhat limited,* and *very limited*. The suitability ratings are expressed as *well suited, moderately suited, poorly suited,* and *unsuited* or as *good, fair,* and *poor*.

Numerical Ratings

Numerical ratings in the tables indicate the relative severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate

gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation. The limitations appear in order from the most limiting to the least limiting. Thus, if more than one limitation is identified, the most severe limitation is listed first and the least severe one is listed last.

Crops and Pasture

Paul A. Ray, Resource Conservationist, Natural Resources Conservation Service, helped prepare this section.

General management needed for crops and pasture is suggested in this section. The estimated yields of the main crops and pasture plants are listed, the system of land capability classification used by the Natural Resources Conservation Service is explained, and prime farmland is described.

Planners of management systems for individual fields or farms should consider the detailed information given in the description of each soil under the heading "Detailed Soil Map Units." Specific information can be obtained from the local office of the Natural Resources Conservation Service or the Cornell Cooperative Extension Service.

General management needs for crops and pasture is provided in this section. The system of land capability used by the Natural Resources Conservation Service (NRCS) is explained. The estimated yields of the main crops grown in Fulton County are listed for each soil map unit in table 5.

Land Capability Classification

The NRCS Land Capability Classification (LCC) is a system of grouping soils primarily on the basis of their capability to produce common cultivated crops and pasture plants without deteriorating over a long period of time. The LCC includes eight classes of land designated by Arabic numerals 1 through 8. The first four classes are arable land, suitable for cropland, in which the limitations on their use and necessity of conservation measures and careful management increase from 1 thru 4. The criteria for placing a given area in a particular class involve the landscape location, slope of the field, depth, texture, and reaction of the soil. The remaining four classes, 5 thru 8, are generally not to be used for cropland, but may have uses for pasture, range, woodland, grazing, wildlife, recreation, and esthetic purposes. Within the broad classes are subclasses which signify special limitations such as (e) erosion, (w) excess wetness, (s) problems in the rooting zone, and (c) climatic limitations.

All soils are assigned a capability class. Soils with capability class 2 through 7 are also assigned a subclass. USDA–Agriculture Handbook No. 210 (http://soils.usda.gov/technical/handbook/contents/part622.html#ex2) provides general guidance for assignment of the class and subclass. The system is subdivided into capability class and capability subclass.

Capability class is the broadest category in the land capability classification system. Class codes 1 through 8 are used to represent both irrigated and nonirrigated land capability classes.

Class 1 soils have slight limitations that restrict their use.

Class 2 soils have moderate limitations that reduce the choice of plants or require moderate conservation practices.

Class 3 soils have severe limitations that reduce the choice of plants or require special conservation practices, or both.

Class 4 soils have very severe limitations that restrict the choice of plants or require very careful management, or both.

Class 5 soils have little or no hazard of erosion but have other limitations, impractical to remove, that limit their use mainly to pasture, range, forestland, or wildlife food and cover.

Class 6 soils have severe limitations that make them generally unsuited to cultivation and that limit their use mainly to pasture, range, forestland, or wildlife food and cover.

Class 7 soils have very severe limitations that make them unsuited to cultivation and that restrict their use mainly to grazing, forestland, or wildlife.

Class 8 soils and miscellaneous areas have limitations that preclude their use for commercial plant production and limit their use to recreation, wildlife, or water supply or for esthetic purposes.

Capability subclass is the second category in the land capability classification system. Class codes *e, w, s,* and *c* are used for land capability subclasses.

Subclass e is made up of soils for which the susceptibility to erosion is the dominant problem or hazard affecting their use. Erosion susceptibility and past erosion damage are the major soil factors that affect soils in this subclass.

Subclass w is made up of soils for which excess water is the dominant hazard or limitation affecting their use. Poor soil drainage, wetness, a high water table, and overflow are the factors that affect soils in this subclass.

Subclass s is made up of soils that have soil limitations within the rooting zone, such as shallowness of the rooting zone, stones, low moisture-holding capacity, and low fertility that is difficult to correct.

Subclass c is made up of soils for which the climate (the temperature or lack of moisture) is the major hazard or limitation affecting their use.

The subclass represents the dominant limitation that determines the capability class. Within a capability class, where the kinds of limitations are essentially equal, the subclasses have the following priority: e, w, s, and c.

Conservation Management Systems

Planners of conservation management systems (CMS) for individual fields or groups of fields, known as conservation treatment units, on farms should consider the detailed information given in the description of each soil under the “Detailed Soil Map Units” section. Specific information can be obtained from the local NRCS Service Center or the Cornell Cooperative Extension Service.

Cropland Acres and Common Crops

The table on page 532 provides information regarding the number of farms, land in farms, cropland acres, and acres by the most common crops grown in Fulton County. The information is taken from the U.S. Department of Agriculture–National Agricultural Statistics Service (2004) 2002 Census of Agriculture–New York State and County Data. (AC-02-A-32.)

This data is the most recent available at the time of publication. Readers are advised to consult updates to the Census of Agriculture over ensuing years.

In addition to the traditional agricultural crops shown in above table, as of 2002, Fulton County had 476 acres planted to Christmas trees, 17 acres for short rotation woody crops, and produced 992 gallons of maple syrup from 7,240 taps.

Agricultural Production

The potential for increased agricultural crop production is good in many parts of the county. Proper use and management of soils will help sustain crop production and yield over the long term. Certain soils of glacial till, outwash, and/or alluvial deposits are some of the most productive in Fulton County. Examples would be Mohawk silt loam, 3 to 8 percent slopes and Agawam fine sandy loam, 0 to 3 percent slopes.

Information about suitable management practices for the soils in Fulton County is available at the Fultonville USDA Service Center which houses the local office of the NRCS, and at the Fulton County Soil and Water Conservation District in Johnstown.

Cropland Acres Total and by Crop

Crop or Land Use	2002 Acres
Farms (246)	37,652
Total cropland	27,199
Corn for grain	813
Corn for silage	2,386
Oats for grain	91
Hay—All hay including alfalfa, other tame, small grain, and wild	9,747
Forage–Land used for all hay and haylage, grass silage, and greenchop	13,969
Vegetables (irrigated and nonirrigated)	70
Orchards	54
Fruits and Nuts	53
Berries	16

The Web Soil Survey (WSS) provides soil data and information produced by the National Cooperative Soil Survey. It is operated by the NRCS and provides access to the largest natural resource information system in the world. NRCS has soil maps and data available online. The site is updated and maintained online as the single authoritative source of soil survey information. The WSS can be accessed at http://websoilsurvey.nrcs.usda.gov/app/ .

Soil erosion from water is a potential hazard on many areas of the cropland found in Fulton County. Water erosion is characterized by three phases, sheet, rill, and gully with the latter being the most drastic and damaging. Accelerated soil erosion is that which exceeds normal geologic rates. It is usually associated with activities including urbanization, road construction, farming, and mining. Most commonly, soil erosion causes decreased soil fertility, available moisture for plant growth, formation of rills and gullies, deterioration of tilth and structure, sedimentation, and pollution of surface water bodies. It also affects wildlife and recreation resources and presents a cost of remediation and repair to local economies. All of these induced limitations usually increase production costs, consumer prices, taxpayer burdens, and degrade the overall environment until addressed with soil and water conservation practices and management.

The potential hazard of water erosion is related to the length and degree of slope, the soil erodibility, the climatic factor that takes into account the amount and intensity of rainfall, and the amount and type of plant cover on the soils surface. Actual erosion is also influenced by the types of conservation management practices employed to control erosive forces from water. Erosion can also be a hazard on areas other than cropland if vegetation is lacking from the soil surface. For example, gully formation in shallow road ditches may cut into original soil material where vegetation has not been reestablished. Spring snowmelt followed by intense storm events will often form gullies in a relatively short period of time. Runoff tends to become concentrated along road shoulders and ditches making these areas vulnerable to erosion.

Soil productivity decreases when the surface layer is lost and increasing amounts of subsoil are incorporated into the plow layer. This is especially true in areas of soils that

have fine-textured subsoil such as Darien soils. Soils that are shallow to bedrock, such as Farmington or Hollis soils, are irreparably damaged as a result of erosion.

The Adirondack Mountain region of this county (Major Land Resource Area 143) has soils characterized by sandy textures that are commonly with gravel, cobble, or large stones. Such soils are typically droughty and some have a soil temperature regime that is colder than lower lying areas of the county. These soil properties, alone or in combination, can present challenges to agricultural use.

Erosion control practices provide protective cover, reduce the runoff rate, and increase the rate of water infiltration into the soil profile. The latter provides more water for plant growth. Many tillage and conservation practices help to control erosion, and a combination of practices is generally recommended especially as the degree of slope and/or slope length increases. The use of residue management practices such as zone-till and mulch tillage, cover crops, and crop rotations that include grasses and legumes are effective on most of the soils in the county. Contour tillage, stripcropping, and the use of diversions are more suitable on soils that have long and more uniform or smooth slopes such as Manheim and Georgia soils.

Control for water erosion is generally needed on fine-textured soils that have slopes of greater than five percent; have a high content of silt and/or clay; and few or no rock fragments, such as Hudson, Mohawk, Palatine and Rhinebeck soils. The erosion-control effectiveness of a single or group of conservation practices differs from one soil to another, and different combinations can be equally effective in some areas while other systems may not be adaptable due to landform, soil wetness, excessively high runoff, or other soil related characteristics.

Seasonal wetness may delay planting or cause crop damage in areas of somewhat poorly drained soils of the county. For example, such areas may contain Angola or Appleton, soils. Poorly drained or very poorly drained soils such as Ilion and Birdsall are generally too wet and, therefore, impractical for the production of the commonly grown crops of the county. Surface and subsurface drainage systems have been installed in some areas of these somewhat poorly drained and poorly drained soils in the county.

In some areas of Fulton County, surface stones, boulders, and rock outcrops severely limit the use of some soils as cropland or pasture. They interfere with the use of farming equipment and field activities such as the preparation of fields for planting. Some very stony or very bouldery soils, such as Henniker, Metacomet, Monadnock, and Tunbridge are better suited to permanent pasture, trees, or native cover than to cultivated crops. Applying fertilizer, reseeding, and mowing are difficult in many pastured areas of these soils.

Removing the larger stones and boulders from some soils that have few additional limitations may be feasible. Overcoming limitations in areas of rock outcrop however, is generally not feasible. Hollis-Rock outcrop complex, 3 to 25 percent slopes, is an example of such an area.

Available water capacity is an important factor that affects crop growth. Some soils in the county tend to be droughty. Sandy and gravelly soils, soils that have a restricting layer, and soils that are shallow over bedrock tend to have a fairly low available water capacity. The sandy and/or gravelly Adams, Hinckley, and Windsor soils commonly have a low or very low available water capacity. Maintaining or increasing the content of organic matter and improving soil structure increase the available water capacity of these droughty soils. Cover crops that are incorporated during tillage operations, conservation of crop residue, and the addition of manure increase the organic matter content and improve soil structure and tilth. In general, many sandy and/or gravelly soils are difficult to maintain as cropland due to excessively high infiltration and percolation rates, common droughty conditions during critical plant growth periods (tasseling in corn), and sometimes relatively high levels of oxidation of organic matter added to the soil.

Soil tilth is an important factor affecting the emergence of seedlings, the infiltration of water, and the ease of cultivation. Soils with good tilth generally have granular structure and are porous. The soils can be kept granular and porous by cultivating at the proper moisture content; by including sod crops in rotation, cover crops in the crop rotation, and by properly managing crop residue or adding manure.

Tillage operations can influence soil tilth. Excessive tillage tends to reduce the content of organic matter and break down soil structure. Adams, Merrimac, Windsor and other soils that are very deep, well drained or somewhat excessively drained, and coarse or moderately coarse textured, are examples of such soils. These can be tilled throughout a wide range in moisture content without deterioration of tilth. Tilling wetter and finer textured soils such as Churchville, Darien, and Palantine, at the proper moisture content helps to prevent deterioration of soil structure and the formation of impervious subsurface plow pans. Tilling when such soils are wet, results in puddling and in the formation of hard surface crusts. Also, clods usually develop as the soils dry. Cultivating the soils at the proper moisture content, including cover and sod crops in the cropping system, returning crop residue to the soil, and adding manure help to keep the soils granular and porous. Soil fertility is important for optimum crop production. The soils in the county require lime and/or fertilizer for optimum production, and some require both. There are areas of the county where soil pH is not as extensive a problem due to the native lime content of the soil. The amount of lime and fertilizer needed depends on the natural content of lime and plant nutrients, the needs of a particular crop, and on the level of desired yields. Regular soil sampling for fertility analysis is highly recommended. The test results will provide information for application at agronomic needs that results in economic savings and helps prevent water pollution due to over-application and polluted runoff.

The content of organic matter is an important factor affecting fertility. Poorly drained and very poorly drained soils that have a dark surface layer such as Birdsall and Fonda, have a relatively high content of organic matter. The lighter colored Lansing soils have a lower content of organic matter. On the other hand, Pleasant Lake and Wonsqueak formed entirely in organic matter and are dark colored throughout.

Nitrogen is released from the organic matter, but much of it is in complex forms that cannot be used by growing plants until it is decomposed by soil micro-organisms. Nitrogen fertilizer is needed to supplement the plant available nitrogen from the organic matter in the soil. Management practices that increase the content of organic matter, such as cover crops, sod in rotation, and crop residue management increase the content of nitrogen.

Timeliness of nitrogen fertilization is important to ensure its maximum use by plants. Nitrogen can be lost through leaching in rapidly permeable soils, such as Adams, Hinckley, and Windsor, or by denitrification in wetter and less permeable soils such as Mosherville. The best results can be obtained by applying small amounts of nitrogen at the proper intervals (e.g. split applications and use of the pre-sidedress nitrogen test (PSNT)). In split applications, the nitrogen is applied at the time of planting and later as a side-dressing when the crop is growing.

While overall phosphorous content of agricultural soils in Fulton County is relatively high, the native content is generally low. It tends to be very low in coarse textured soils, such as Adams and Windsor. Additions of the appropriate amounts of phosphate in the form of commercial fertilizer are essential in areas used by crops. Phosphorous content of feeds brought into the farm and manure applied to cropland should be taken into account in a farm nutrient budget that is based on regular soil and feed analysis.

Most of the soils in the county have low or medium levels of available potassium. The potassium-supplying power of a soil depends upon the clay content. Soils such as Rhinebeck are somewhat higher in potassium since they have clayey subsoils. Some soils that have a fairly high content of potassium require additional potassium for the

optimum yields of most crops. Soil tests from Cornell University or other reputable source should be taken regularly to determine all plant nutrient needs.

Lime is needed on many of the soils in the county to raise the reaction (pH) to a level that will ensure the optimum yields of most crops. Additions of lime and fertilizer should be based on the results of soil tests. For assistance in obtaining soil tests and recommendations, farmers and others can contact the local office of the Cooperative Extension Service.

Information on recent research findings and fertilizer recommendations can be found in the current edition of the "Cornell Guide for Integrated Field Crop Management" and in the "Cornell Field Crops and Soils Handbook". These documents are prepared by the New York State College of Agriculture and Life Sciences at Cornell University in Ithaca, New York. Additional information can be obtained by contacting the local office of the Cornell Cooperative Extension Service or by going to the appropriate Cornell website.

The acreage in crops has decreased in the past decade as numerous farms have gone out of business or changed their farming enterprise. However, some farmers rely heavily on the productivity of pastures during the growing season to provide a portion of their livestock nutritional needs. Most soils in the county where livestock farming is prevalent will react well to prescribed grazing methods. While this practice is not suited to all farms, it presents an excellent management tool to increase soil health, decrease polluted runoff, and provide an economically efficient method of providing high quality forage for livestock. Some farmers have initiated rotational grazing systems, a method of prescribed grazing, and have converted crop fields to pasture in order to obtain the forage required for their operation.

Yields per Acre

The average yields per acre that can be expected of the principal crops under a high level of management are shown in table 5. In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors. The land capability classification of map units in the survey area also is shown in the table.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

For yields of irrigated crops, it is assumed that the irrigation system is adapted to the soils and to the crops grown, that good-quality irrigation water is uniformly applied as needed, and that tillage is kept to a minimum.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in table 5 are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

Prime Farmland

Prime farmland is one of several kinds of important farmland defined by the U.S. Department of Agriculture. It is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil qualities, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. It is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

About 53,354 acres in the survey area, or nearly 15.7 percent of the total acreage, meets the soil requirements for prime farmland. Another 12,966 acres or about 3.8 percent qualifies as prime farmland if drained. Scattered areas of this land are throughout the county, but most are in the southern part of Fulton County.

A recent trend in land use in some parts of the survey area has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

The map units in the survey area that are considered prime farmland are listed in table 6. This list does not constitute a recommendation for a particular land use. On some soils included in the list, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures. The extent of each listed map unit is shown in table 4. The location is shown on the detailed soil maps. The soil qualities that affect use and management are described under the heading "Detailed Soil Map Units."

Forest Productivity and Management

Clifford C. Wray, Senior Forester, Department of Environmental Conservation, Region 5, Northville, NY, helped prepare this section.

The tables in this section can help forest owners or managers plan the use of soils for wood crops. They show the potential productivity of the soils for wood crops and rate the soils according to the limitations that affect various aspects of forest management.

Fulton County is located between the Mohawk River Valley to the south and the southern Adirondack Mountains to the north and exhibits a transitional geophysical zone between the two areas, sometimes called the Adirondack foothills. Approximately 244,560 acres or 71.7 percent of the County is forested with approximately 82,642 acres (24.2 percent) of public forest lands and approximately 161,918 acres (47.5 percent) of private forest lands. The general character of Fulton County is rural.

Physical topographical features and underlying geology of Fulton County have allowed soil development that has strongly influenced the types of forest coverage in the County. Agriculture occurred primarily through the southern and central portions of the County while the northern portion remained primarily forested. Fulton County generally has developed a northern hardwood forest type consisting of sugar maple, American beech, and yellow birch along with red maple, eastern white pine, black cherry, white ash, and paper birch. Specific areas have developed a northern hardwood forest type and sometimes combined with other tree species types. The southern portion of the county has developed the northern hardwood forest type with a mixture of tree species found associated with the more southern Appalachian forest type such as shagbark hickory. The eastern and central portions of Fulton County have stonier soils from granitic deposits on level to more sloping topography where a northern hardwood-white pine forest type has developed. This forest type has a strong white pine component on deeper, well drained sandy upland soils where it can compete with hardwoods. These areas of the county have also developed a northern hardwood forest type with a northern red oak component, especially along the drier south-facing, steeper slopes. The northern portion of the county commonly has areas of stonier and shallower, acidic soils on steeper slopes developing a northern hardwood and northern hardwood-spruce/fir forest types. In the lower wet flats and on some north-facing slopes, spruce-fir forest types have developed which transition to northern hardwoods at higher elevations. A northern hardwood-hemlock forest type has developed throughout the county around the edges of wetland areas and along steeper drainage ravines.

In Fulton County, the suitability of soils for forest productivity is considered good with no limitations for a band of soils extending from the western portion and across to the central portion of the County. The remaining areas of the county have soils considered fair for forest productivity based on limitations due to wetness, shallowness, steepness, and stoniness.

The history of forest use and management in Fulton County dates from colonial times initially with limited amounts of logging to provide lumber for local construction. More attention to county forest lands during the mid 1800s generated more logging and timber use as log transportation capability was improved, initially with use of existing streams and rivers and later with development of railroads and road systems. Three major forest-related industries developed in Fulton County. The first was the lumber industry with logs being shipped or floated to local sawmills. Rivers and streams in the county allowed logs to be moved out of forest areas to the local sawmills. By the end of the nineteenth century, large areas of Adirondack forest had been cleared by lumber companies using railroads to move farther and farther into the Adirondacks. The second forest-related industry was the skin tanning industry that developed to provide tanned leather for glove and shoe making. Tanning mills developed where there was a ready supply of hemlock bark which was necessary for the tanning process. Numerous tanning mills were established including a large mill operated in the town of Caroga area from the mid to late 1800s. Many mills were closed as the supply of hemlock bark dwindled. The third forest-related industry is the pulp and paper industry. Large paper companies, including Finch, Pruyn & Co. Inc., and International Paper Company acquired large areas of Adirondack forest to supply paper mills located in Glens Falls, Corinth, and Ticonderoga. The local logging industry continues to supply pulpwood to local paper mills.

New York State created the State Forest Preserve in 1885 to keep the lands of the Forest Preserve as wild forest lands, not to be sold, leased or taken by any corporation, public or private. In 1892 the Adirondack Park was created and the boundary of the Park was delineated on official maps by a blue line. In 1895 the state constitution was revised by amendment to give constitutional protection to the Forest Preserve lands located in the Adirondack and Catskill parks and to protect

Forest Preserve timber resources from being sold, removed, or destroyed. When the Adirondack Park was enlarged in 1931, the area of Fulton County included in the park was increased to include approximately 60.2 percent of the county. The area of Fulton County inside the Adirondack Park includes approximately 205,409 acres, encompassing the entire towns of Northampton, Bleecker, Caroga, and Stratford and portions of the towns of Broadalbin, Johnstown, Ephratah, and Oppenheim. Fulton County contains approximately 76,346 acres of Forest Preserve lands in the Ferris Lake Wild Forest and the Shaker Mountain Wild Forest. Timber within the Forest Preserve is not subject to sale, removal or destruction and Forest Preserve is managed for recreational uses and forest protection.

Fulton County also contains approximately 5,998 acres of state forest in three units known as the Lassellsville, Peck Hill and Rockwood units. These units are located outside of the Adirondack Park and are managed for multiple uses including sustainable timber management, wildlife management and recreation. State forest lands are managed by the Department of Environmental Conservation using sustainable forestry practices. Sustainable forest management incorporates principles of a well-managed forest including conservation of biological diversity, maintenance and improvement of productive capacity, maintenance of forest health and vigor, protection of soil and water resources, consideration of carbon cycles, consideration of socio-economic benefits and impacts, and compliance with local, State and Federal laws.

Forest Productivity

In table 7 (Forestland Productivity), the *potential productivity* of merchantable or *common trees* on a soil is expressed as a site index and as a volume number. The *site index* is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands. Commonly grown trees are those that forest managers generally favor in intermediate or improvement cuttings. They are selected on the basis of growth rate, quality, value, and marketability.

The *volume of wood fiber*, a number, is the yield likely to be produced by the most important tree species. This number, expressed as cubic feet per acre per year and calculated at the age of culmination of the mean annual increment (CMAI), indicates the amount of fiber produced in a fully stocked, even-aged, unmanaged stand.

Trees to manage are those that are preferred for planting, seeding, or natural regeneration and those that remain in the stand after thinning or partial harvest.

Forest Management

In table 8 (Hazard of Erosion and Soil Rutting on Forestland), table 9 (Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland), and table 10 (Seedling Mortality and Windthrow Hazard on Forestland), interpretive ratings are given for various aspects of forest management. The ratings are both verbal and numerical.

Some rating class terms indicate the degree to which the soils are suited to a specified forest management practice. *Well suited* indicates that the soil has features that are favorable for the specified practice and has no limitations. Good performance can be expected, and little or no maintenance is needed. *Moderately suited* indicates that the soil has features that are moderately favorable for the specified practice. One or more soil properties are less than desirable, and fair performance can be expected. Some maintenance is needed. *Poorly suited* indicates that the soil has one or more properties that are unfavorable for the specified practice. Overcoming the unfavorable properties requires special design, extra maintenance, and costly alteration. *Unsuited* indicates that the expected performance of the soil is unacceptable for the specified

practice or that extreme measures are needed to overcome the undesirable soil properties.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified forest management practice (1.00) and the point at which the soil feature is not a limitation (0.00).

Rating class terms for seedling mortality and windthrow hazard are expressed as *low, moderate,* and *high*. Where these terms are used, the numerical ratings indicate gradations between the point at which the potential for seedling mortality or windthrow is highest (1.00) and the point at which the potential is lowest (0.00).

The paragraphs that follow indicate the soil properties considered in rating the soils for forest management practices.

For *limitations affecting construction of haul roads*, the ratings are based on slope, flooding, content of sand and clay, rock fragments on the surface, depth to a restrictive layer, depth to a water table, and ponding. The limitations are described as slight, somewhat limited, or very limited. A rating of *slight* indicates that no significant limitations affect construction activities, *somewhat limited* indicates that one or more limitations can cause some difficulty in construction, and *very limited* indicates that one or more limitations can make construction very difficult or very costly.

The ratings of *suitability for log landings* are based on slope, rock fragments on the surface, content of sand and clay, depth to a water table, ponding, flooding, and soil strength. The soils are described as well suited, moderately suited, or poorly suited to use as log landings.

Ratings in the column *suitability for operation of harvesting equipment* are based on slope, rock fragments on the surface, content of sand and clay, soil strength, depth to a water table, and ponding. The soils are described as well suited, moderately suited, or poorly suited to this use.

Ratings in the column *soil rutting hazard* are based on depth to a water table, slope, and soil strength. Ruts form as a result of the operation of forest equipment. The hazard is described as slight, moderate, or severe. A rating of *slight* indicates that the soil is subject to little or no rutting, *moderate* indicates that rutting is likely, and *severe* indicates that ruts form readily.

Ratings in the column *hazard of off-road or off-trail erosion* are based on slope and on soil erodibility factor K. The soil loss is caused by sheet or rill erosion in off-road or off-trail areas where more than 50 percent of the surface has been exposed by logging, grazing, mining, or other kinds of disturbance. The hazard is described as slight, moderate, severe, or very severe. A rating of *slight* indicates that erosion is unlikely under ordinary climatic conditions; *moderate* indicates that some erosion is likely and that erosion-control measures may be needed; *severe* indicates that erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised; and *very severe* indicates that significant erosion is expected, loss of soil productivity and off-site damage are likely, and erosion-control measures are costly and generally impractical.

Ratings in the column *potential for seedling mortality* are based on flooding, ponding, depth to a water table, and available water capacity. The soils are described as having a slight, moderate, or severe potential for seedling mortality.

Windthrow is the tipping or blowing over of trees during high wind events. Potential for windthrow is greatest where the root zone is shallow due to one or more limiting soil features. Ratings in the column *potential for windthrow* are based on depth to a water table, depth to bedrock, and depth to dense soil material. The soils are described as having a slight, moderate, or severe potential for windthrow.

More detailed information regarding forest productivity and forest management is available in the “National Forestry Manual”, which is available in local offices of the Natural Resources Conservation Service or on the Internet.

The Department of Environmental Conservation promotes use of sustainable forest management practices by private forest owners and recommends that forest owners contact the local Division of Lands and Forests office in Northville to discuss their forest management goals. Forest owners should have a Forest Stewardship Plan prepared that incorporates sustainable management principles and identifies the quality and health of the landowner’s forest resources and provides management recommendations based on the landowner’s property goals.

Forest health issues of Fulton County forest resources have included the American chestnut blight, a fungus discovered in New York State in 1904, which has removed the American chestnut as a commercial species from the forest. Near the beginning of the twentieth century, the white pine blister rust, a fungus, was introduced from Europe and was devastating to white pine. In 1870, the gypsy moth was introduced to New England from Europe. With no natural enemies, the moth spread rapidly. Over a period of time, natural factors and human manipulation have managed to provide some control over gypsy moth populations in the county. The American beech is currently being decimated by a disease complex called beech bark disease. Beech bark disease is caused by a small scale insect and associated fungus introduced to North America from Europe in the 1920s. Introduced pests and diseases have serious impacts on native tree species because they usually arrive without controlling predators or parasites, and the trees have no developed natural defenses. Other introduced insects not currently known to be in the county, but whose ranges may include the county in the future, include the emerald ash borer (attacks ash), Asian long-horned beetle (attacks hardwoods), and the hemlock woolly adelaide (attacks hemlock). Vigilance and planning are necessary to successfully manage Fulton County forest resources to address these new threats to our native tree species. Forest owners should consult professional foresters for the latest advice.

Native diseases and insect pests, such as forest tent caterpillar, become troublesome periodically. While these outbreaks may sometimes be severe, they are usually controlled over a period of time by associated predators and parasites or by natural defenses of the trees.

Sustainable management and wise use of Fulton County forest resources will allow us to meet our current forest product needs without compromising the ability of future generations to meet their own need. Use of proper timber management practices will maintain and improve the quality, health, and diversity of our forest resources while protecting soil and water resources, fish and wildlife habitats, and significant historical, recreational, and aesthetic resources.

Recreation

The soils of the survey area are rated in tables 11 and 12 according to limitations that affect their suitability for recreation. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the tables are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in tables 11 and 12 can be supplemented by other information in this survey, for example, interpretations for building site development, construction materials, sanitary facilities, and water management.

Camp areas require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas. The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Picnic areas are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Playgrounds require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Paths and trails for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties

that affect trafficability and erodibility. These properties are stoniness, depth to a water table, ponding, flooding, slope, and texture of the surface layer.

Off-road motorcycle trails require little or no site preparation. They are not covered with surfacing material or vegetation. Considerable compaction of the soil material is likely. The ratings are based on the soil properties that influence erodibility, trafficability, dustiness, and the ease of revegetation. These properties are stoniness, slope, depth to a water table, ponding, flooding, and texture of the surface layer.

Golf fairways are subject to heavy foot traffic and some light vehicular traffic. Cutting or filling may be required. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer. The suitability of the soil for traps, tees, roughs, and greens is not considered in the ratings.

Engineering

This section provides information for planning land uses related to urban development and to water management. Soils are rated for various uses, and the most limiting features are identified. Ratings are given for building site development, sanitary facilities, construction materials, and water management. The ratings are based on observed performance of the soils and on the data in the tables described under the heading “Soil Properties.”

Information in this section is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil between the surface and a depth of 5 to 7 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.

The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works.

Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this section. Local ordinances and regulations should be considered in planning, in site selection, and in design.

Soil properties, site features, and observed performance were considered in determining the ratings in this section. During the fieldwork for this soil survey, determinations were made about particle-size distribution, liquid limit, plasticity index, soil reaction, depth to bedrock, hardness of bedrock within 5 to 7 feet of the surface, soil wetness, depth to a water table, ponding, slope, likelihood of flooding, natural soil structure aggregation, and soil density. Data were collected about kinds of clay minerals, mineralogy of the sand and silt fractions, and the kinds of adsorbed cations. Estimates were made for erodibility, permeability, corrosivity, shrink-swell potential, available water capacity, and other behavioral characteristics affecting engineering uses.

This information can be used to evaluate the potential of areas for residential, commercial, industrial, and recreational uses; make preliminary estimates of construction conditions; evaluate alternative routes for roads, streets, highways, pipelines, and underground cables; evaluate alternative sites for sanitary landfills, septic tank absorption fields, and sewage lagoons; plan detailed onsite investigations of soils and geology; locate potential sources of gravel, sand, earthfill, and topsoil;

plan drainage systems, irrigation systems, ponds, terraces, and other structures for soil and water conservation; and predict performance of proposed small structures and pavements by comparing the performance of existing similar structures on the same or similar soils.

The information in the tables, along with the soil maps, the soil descriptions, and other data provided in this survey, can be used to make additional interpretations.

Some of the terms used in this soil survey have a special meaning in soil science and are defined in the Glossary.

Building Site Development

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Tables 13 and 14 show the degree and kind of soil limitations that affect dwellings with and without basements, small commercial buildings, local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the tables are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Small commercial buildings are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock

or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

Sanitary Facilities

Table 15 shows the degree and kind of soil limitations that affect septic tank absorption fields. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Septic tank absorption fields are areas in which effluent from a septic tank is distributed into the soil through perforated pipe or similar devices. That part of the soil between depths of 12 and 48 inches is evaluated. In addition, the bottom layer of soil is evaluated for risk of seepage. The ratings are based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and

public health. Saturated hydraulic conductivity, depth to a water table, ponding, depth to bedrock or dense material, and flooding affect absorption of the effluent. Bedrock, dense material, and stones and boulders interfere with installation. Excessive slope may cause lateral seepage and surfacing of the effluent in downslope areas.

Some soils are underlain by loose sand and gravel or fractured bedrock at a depth of less than 4 feet below the distribution lines. In these soils the absorption field may not adequately filter the effluent, particularly when the system is new. As a result, the ground water may become contaminated.

Construction Materials

Table 16 gives information about the soils as potential sources of topsoil, reclamation material and roadfill. Normal compaction, minor processing, and other standard construction practices are assumed.

The soils are rated *good, fair,* or *poor* as potential sources of topsoil, reclamation material, and roadfill. The features that limit the soils as sources of these materials are specified in the tables. The numerical ratings given after the specified features indicate the degree to which the features limit the soils as sources of topsoil, reclamation material, or roadfill. The lower the number, the greater the limitation.

Topsoil is used to cover an area so that vegetation can be established and maintained. The upper 40 inches of a soil is evaluated for use as topsoil. Also evaluated is the reclamation potential of the borrow area. The ratings are based on the soil properties that affect plant growth; the ease of excavating, loading, and spreading the material; and reclamation of the borrow area. Toxic substances, soil reaction, and the properties that are inferred from soil texture, such as available water capacity and fertility, affect plant growth. The ease of excavating, loading, and spreading is affected by rock fragments, slope, depth to a water table, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, depth to a water table, rock fragments, depth to bedrock or a cemented pan, and toxic material.

The surface layer of most soils is generally preferred for topsoil because of its organic matter content. Organic matter greatly increases the absorption and retention of moisture and nutrients for plant growth.

Reclamation material is used in areas that have been drastically disturbed by surface mining or similar activities. When these areas are reclaimed, layers of soil material or unconsolidated geological material, or both, are replaced in a vertical sequence. The reconstructed soil favors plant growth. The ratings in the table do not apply to quarries and other mined areas that require an offsite source of reconstruction material. The ratings are based on the soil properties that affect erosion and stability of the surface and the productive potential of the reconstructed soil. These properties include the content of sodium, salts, and calcium carbonate; reaction; available water capacity; erodibility; texture; content of rock fragments; and content of organic matter and other features that affect fertility.

Roadfill is soil material that is excavated in one place and used in road embankments in another place. In this table, the soils are rated as a source of roadfill for low embankments, generally less than 6 feet high and less exacting in design than higher embankments.

The ratings are for the whole soil, from the surface to a depth of about 5 feet. It is assumed that soil layers will be mixed when the soil material is excavated and spread.

The ratings are based on the amount of suitable material and on soil properties that affect the ease of excavation and the performance of the material after it is in place. The thickness of the suitable material is a major consideration. The ease of excavation is affected by large stones, depth to a water table, and slope. How well the soil performs in place after it has been compacted and drained is determined by its strength (as inferred from the AASHTO classification of the soil) and linear extensibility (shrink-swell potential).

Water Management

Table 17 gives information on the soil properties and site features that affect water management. The degree and kind of soil limitations are given for pond reservoir areas; embankments, dikes, and levees; and aquifer-fed excavated ponds. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Pond reservoir areas hold water behind a dam or embankment. Soils best suited to this use have low seepage potential in the upper 60 inches. The seepage potential is determined by the permeability of the soil and the depth to fractured bedrock or other permeable material. Excessive slope can affect the storage capacity of the reservoir area.

Embankments, dikes, and levees are raised structures of soil material, generally less than 20 feet high, constructed to impound water or to protect land against overflow. Embankments that have zoned construction (core and shell) are not considered. In this table, the soils are rated as a source of material for embankment fill. The ratings apply to the soil material below the surface layer to a depth of about 5 feet. It is assumed that soil layers will be uniformly mixed and compacted during construction.

The ratings do not indicate the ability of the natural soil to support an embankment. Soil properties to a depth even greater than the height of the embankment can affect performance and safety of the embankment. Generally, deeper onsite investigation is needed to determine these properties.

Soil material in embankments must be resistant to seepage, piping, and erosion and have favorable compaction characteristics. Unfavorable features include less than 5 feet of suitable material and a high content of stones or boulders, organic matter, or salts or sodium. A high water table affects the amount of usable material. It also affects trafficability.

Aquifer-fed excavated ponds are pits or dugouts that extend to a ground-water aquifer or to a depth below a permanent water table. Excluded are ponds that are fed only by surface runoff and embankment ponds that impound water 3 feet or more above the original surface. Excavated ponds are affected by depth to a permanent water table, permeability of the aquifer, and quality of the water as inferred from the salinity of the soil. Depth to bedrock and the content of large stones affect the ease of excavation.

Soil Properties

Data relating to soil properties are collected during the course of the soil survey.

Soil properties are ascertained by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine particle-size distribution, plasticity, and compaction characteristics.

Estimates of soil properties are based on field examinations, on laboratory tests of samples from the survey area, and on laboratory tests of samples of similar soils in nearby areas. Tests verify field observations, verify properties that cannot be estimated accurately by field observation, and help to characterize key soils.

The estimates of soil properties are shown in tables. They include engineering index properties, physical and chemical properties, and pertinent soil and water features.

Engineering Index Properties

Table 18 gives the engineering classifications and the range of index properties for the layers of each soil in the survey area.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. “Loam,” for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, “gravelly.” Textural terms are defined in the Glossary.

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2001) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2000).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement,

the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

The estimates of particle-size distribution, liquid limit, and plasticity index are generally rounded to the nearest 5 percent. Thus, if the ranges of gradation and Atterberg limits extend a marginal amount (1 or 2 percentage points) across classification boundaries, the classification in the marginal zone is generally omitted in the table.

Physical and Chemical Properties

Table 19 shows estimates of some physical and chemical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In table 19, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In table 19, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In table 19, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at bf

1/3b- or bf 1/10 -bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Permeability refers to the ability of a soil to transmit water or air. The term "permeability," as used in soil surveys, indicates saturated hydraulic conductivity. The estimates in the table indicate the rate of water movement, in inches per hour, when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Permeability is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at bf 1/3 b- or bf 1/10 -bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. Volume change is influenced by the amount and type of clay minerals in the soil.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In table 19, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained by returning crop residue to the soil. Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in table 19 as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and permeability. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Soil reaction is a measure of acidity or alkalinity. The pH of each soil horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion. Mineral soil layers have pH values based upon water. Organic soil layers have pH values based on CaCl2.

Soil Features

Table 20 gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A *restrictive layer* is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. The table indicates the hardness and thickness of the restrictive layer, both of which significantly affect the ease of excavation. *Depth to top* is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Subsidence is the settlement of organic soils or of saturated mineral soils of very low density. Subsidence generally results from either desiccation and shrinkage or oxidation of organic material, or both, following drainage. Subsidence takes place gradually, usually over a period of several years. The table shows the expected initial subsidence, which usually is a result of drainage, and total subsidence, which results from a combination of factors.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, permeability, content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel or concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel or concrete in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as *low, moderate,* or *high,* is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion also is expressed as *low, moderate,* or *high*. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

Water Features

Table 21 gives estimates of various water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

The *months* in the table indicate the portion of the year in which the feature is most likely to be a concern.

Water table refers to a saturated zone in the soil. Table 21 indicates, by month, depth to the top *(upper limit)* and base *(lower limit)* of the saturated zone in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. Table 21 indicates *surface water depth* and the *duration* and *frequency* of ponding. Duration is expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. *None* means that ponding is not probable; *rare* that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); *occasional* that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and *frequent* that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

Flooding is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Duration and *frequency* are estimated. Duration is expressed as *extremely brief* if 0.1 hour to 4 hours, *very brief* if 4 hours to 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. *None* means that flooding is not probable; *very rare* that it is very unlikely but possible under extremely unusual

weather conditions (the chance of flooding is less than 1 percent in any year); *rare* that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); *occasional* that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); *frequent* that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and *very frequent* that it is likely to occur very often under normal weather conditions (the chance of flooding is more than 50 percent in all months of any year).

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Relationship between Soil Series, Their Landscape Position, Parent Material, and Drainage

In table 22 the soils in the county are grouped according to a number of factors. The first of these is landscape position. Landscape positions in the county are upland plains, lacustrine plains, outwash plains and deltas, moraines and beach ridges, flood plains, swamps and bogs. The types of parent material in the county are glacial till, outwash sand and gravel, lacustrine deposits, alluvial deposits, and organic material. Soils that formed in similar kinds of parent material are grouped according to their depth to bedrock.

The soils are further grouped on the basis of the texture and morphology of the parent material. For some soils, the kinds of parent material and depth to bedrock are similar, but the mean annual soil temperature varies. These soils are divided into two classes–frigid and mesic, as indicated in the table by elevation above or below 1,000 feet elevation. Paxton and Henniker soils are examples. Paxton soils are mesic, and Henniker soils are frigid.

Finally, the soils are assigned to drainage classes. Soils having the same kind of parent material, depth, and landscape position, but differing in drainage class, form a soil catena. Hudson, Rhinebeck, and Madalin soils are an example. Some soils are in more than one drainage class. Broadalbin soils are an example.

Table 22 supplements the section “Formation of the Soils”. Detailed information about the morphology and character of each soil is given in the section “Soil Series and their Morphology”.

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1998 and 1999). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. Table 23 shows the classification of the soils in the survey area. The categories are defined in the following paragraphs.

ORDER. Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in *sol*. An example is Alfisol.

SUBORDER. Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Udalf (*Ud*, meaning humid, plus *alf*, from Alfisol).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; type of saturation; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Hapludalfs (*Hapl*, meaning minimal horizonation, plus *udalf*, the suborder of the Alfisols that has a udic moisture regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic subgroup is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group but do not indicate transitions to any other taxonomic class. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective *Glossic* identifies the subgroup that has tonguing of the E horizon into the B horizon. An example is Glossic Hapludalfs.

FAMILY. Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle-size class, mineralogy class, cation-exchange activity class, soil temperature regime, soil depth, and reaction class. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is Fine-loamy, mixed, active, mesic Glossic Hapludalfs.

SERIES. The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile. The Lansing series is an example of a soil within the family of Fine-loamy, mixed, active, mesic Glossic Hapludalfs.

Soil Series and Their Morphology

In this section, each soil series recognized in the survey area is described. Characteristics of the soil and the material in which it formed are identified for each

series. A pedon, a small three-dimensional area of soil that is typical of the series in the survey area is described. The detailed description of each soil horizon follows standards in the “Soil Survey Manual” (Soil Survey Division Staff, 1993). Many of the technical terms used in the descriptions are defined in “Soil Taxonomy” (Soil Survey Staff, 1999) and in “Keys to Soil Taxonomy” (Soil Survey Staff, 1998). Unless otherwise indicated, colors in the descriptions are for moist soil. Following the pedon description is the range of important characteristics of the soils in the series.

Adams series

The Adams series consists of very deep, somewhat excessively drained soils formed in sandy deposits. These soils are on outwash plains, deltas, lake plains, moraines, terraces and eskers. Slopes range from 0 to 70 percent.

Adams soils are in a drainage sequence with the moderately well drained Croghan soils, the somewhat poorly drained, and poorly drained Naumburg soils, and the very poorly drained Searsport soils. Other associated soils include the Becket, Colton, Burnt Vly, Pleasant Lake, Lyman, Monadnock, and Potsdam soils. Adams soils contain less gravel than the Colton soils. Adams soils are sandier than the Becket, Lyman, Monadnock, and Potsdam soils, which formed in glacial till. Adams soils do not have thick organic deposits like Burnt Vly and Pleasant Lake soils.

Typical pedon of Adams loamy sand, 0 to 3 percent slopes, in Hamilton County, town of Arietta, about 30 feet south of snowmobile trail, and south of closed town landfill. USGS Piseco Lake 15 minute topographic quadrangle; NAD 27; lat. 43 degrees 27 minutes 15 seconds N. and long. 74 degrees 30 minutes 54 seconds W.

Oe—0 to 2 inches; black (N 2/0) moderately decomposed plant materials composed of balsam fir and red spruce needles.

E—2 to 3 inches; gray (5YR 5/1) loamy sand; weak fine granular structure; friable; many fine and medium and few coarse roots; very strongly acid; abrupt smooth boundary.

Bh—3 to 5 inches; very dusky red (2.5YR 2.5/2) loamy sand; weak fine granular structure; friable; many fine and medium and few coarse roots; very strongly acid; clear smooth boundary.

Bhs—5 to 9 inches; dark reddish brown (5YR 3/3) loamy sand; weak fine granular structure; friable; many fine and medium and few coarse roots; very strongly acid; gradual smooth boundary.

Bs1—9 to 14 inches; dark reddish brown (5YR 3/4) loamy sand; weak fine granular structure; very friable; many fine and few medium roots; strongly acid; gradual smooth boundary.

Bs2—14 to 17 inches; dark yellowish brown (10YR 3/4) loamy sand; single grain; loose; common fine and few medium roots; strongly acid; gradual smooth boundary.

BC—17 to 32 inches; dark yellowish brown (10YR 4/4) sand; single grain; loose; few fine roots; 3 percent fine gravel; strongly acid; gradual smooth boundary.

C1—32 to 58 inches; yellowish brown (10YR 5/4) coarse sand; single grain; loose; 10 percent fine gravel; strongly acid; gradual smooth boundary.

C2—58 to 72 inches; light yellowish brown (10YR 6/4) coarse sand; single grain; loose; 5 percent gravel; moderately acid.

The thickness of the solum ranges from 16 to 35 inches. Depth to bedrock is greater than 72 inches. Rock fragments, mostly gravel, range from 0 to 5 percent by volume above a depth of 20 inches and up to 20 percent below 20 inches. Some pedons have contrasting very gravelly deposits below a depth of 40 inches. The sand fraction is dominantly medium and fine sand.

The O horizon is neutral or has hue of 5YR to 10YR, value of 2 or 3, and chroma of 0 to 2.

An A or Ap horizon is present in some pedons. This horizon has hue of 5YR to 10YR, value of 2 o5, and chroma of 1 to 4. Texture is loamy fine sand, loamy sand, fine sand, or sand. Unless limed, reaction is extremely acid through moderately acid.

The E horizon has hue of 5YR to 10YR, value of 5 to 7, and chroma of 1 to 3. Texture is loamy fine sand, loamy sand, fine sand, or sand. Reaction is extremely acid to moderately acid.

The Bhs or Bh horizon has hue of 2.5YR to 7.5YR, value of 2 or 3, and chroma of 1 to 4. Texture is loamy fine sand, loamy sand, fine sand, or sand. Reaction is very strongly acid to moderately acid.

The Bs horizon has hue of 5YR to 10YR, value of 3 to 6, and chroma of 3 to 8. Texture is loamy fine sand, loamy sand, fine sand, or sand in the fine-earth fraction. Reaction is very strongly acid through moderately acid.

The BC horizon has hue of 7.5YR to 5Y, value of 4 to 6, and chroma of 2 to 6. Texture is fine sand to coarse sand in the fine-earth fraction. Reaction is very strongly acid to moderately acid.

The C horizon has hue of 5YR to 5Y, value of 4 to 7, and chroma of 2 to 6. Texture is fine sand to coarse sand in the fine-earth fraction. Reaction is very strongly acid to slightly acid.

Adirondack Series

The Adirondack series consists of very deep to bedrock, somewhat poorly drained loamy soils overlying compact glacial till. They are in shallow depressions or along drainageways on till plains in the uplands. Slopes range from 0 to 15 percent but are dominantly 0 to 8 percent.

Adirondack soils are in a drainage sequence with well drained Becket and Monadnock soils, and the moderately well drained Skerry soils. Also associated are the sandy Croghan soils, the shallow Lyman soils, and the moderately deep Tunbridge soils. The very poorly drained Tughill and Sabattis soils have a more friable substratum.

Typical pedon of Adirondack fine sandy loam, in a map unit of Adirondack-Sabattis-Tughill complex, 0 to 8 percent slopes, very bouldery, in Hamilton County, town of Morehouse, 100 feet south of a point on NYS Rt.8 where the trail starts to the Fort Noble fire tower; USGS Ohio 15 minute topographic quadrangle; NAD27; lat. 43 degrees 23 minutes 28 seconds N. and long. 74 degrees 49 minutes 40 seconds W.

Oe—0 to 2 inches; black (5YR 2.5/1) moderately decomposed organic matter; (unrubbed 75 percent fibers, rubbed 35 percent fibers;) weak fine and medium granular structure; very friable; many fine and few medium and coarse roots; extremely acid; clear smooth boundary.

Oa—2 to 4 inches; black (5YR 2.5/1) highly decomposed organic matter; (unrubbed 25 percent fibers; rubbed 3 percent fibers) moderate fine and medium granular structure; very friable; many fine and few medium and coarse roots; extremely acid; clear smooth boundary.

E—4 to 6 inches; light brownish gray (10YR 6/2) fine sandy loam, few medium prominent dark reddish brown (5YR 3/4) redox concentrations; weak fine and medium subangular blocky structure; friable; common fine and few medium and coarse roots; 5 percent rock fragments; very strongly acid; abrupt wavy boundary.

Bh—6 to 8 inches; dark reddish brown (5YR 3/2) fine sandy loam; moderate fine and medium subangular blocky structure; friable with 25 percent firm masses; common fine roots; 5 percent rock fragments; common medium and coarse distinct dark reddish brown (5YR 3/4)soft masses of iron accumulation; very strongly acid; abrupt wavy boundary.

Bhs—8 to 9 inches; dark reddish brown (5YR 3/3) fine sandy loam; weak thin and medium platy structure; friable with 20 percent firm masses; few fine roots; 5 percent rock fragments, 1 percent greater than 3 inches; common medium distinct reddish brown (5YR 4/4) soft masses of iron accumulation; common medium faint, dark reddish brown (5YR 2/2) iron depletions; very strongly acid; clear wavy boundary.

Bs—9 to 18 inches; brown (7.5YR 5/4-4/4) fine sandy loam; weak thin and medium platy structure parting to weak very fine subangular blocky; friable, with 20 percent firm masses; few fine roots in the upper part; 5 percent rock fragments, 1 percent greater than 3 inches; many medium and coarse distinct yellowish red (5YR 4/6) and common fine faint light brown (7.5YR 6/4) soft masses of iron accumulation; strongly acid; clear wavy boundary.

BC—18 to 26 inches; yellowish brown (10YR 5/4) to dark yellowish brown (10YR 4/4) sandy loam; weak medium and coarse subangular blocky structure; friable; 10 percent rock fragments, 1 percent greater than 3 inches; many medium and coarse prominent yellowish red (5YR 4/6), common fine and medium faint yellowish brown (10YR 5/6), few medium faint pale brown (10YR 6/3) soft masses of iron accumulation; strongly acid; gradual wavy boundary.

Cd1—26 to 34 inches; brown (10YR 4/3) gravelly loamy sand; weak medium plate-like divisions; firm; 15 percent rock fragments, 1 percent greater than 3 inches; strongly acid; gradual wavy boundary.

Cd2—34 to 43 inches; grayish brown to brown (10YR 5/2, 5/3) gravelly loamy sand; massive; firm in place; 25 percent rock fragments; 3 percent greater than 3 inches; few fine and medium distinct yellowish brown (10YR 5/6) soft masses of iron accumulation; strongly acid; gradual wavy boundary.

Cd3—43 to 72 inches; grayish brown (2.5Y 5/2) gravelly loamy sand; massive; firm in place, friable removed; 30 percent rock fragments, 5 percent greater than 3 inches; strongly acid.

The thickness of the solum and depth to the dense substratum ranges from 15 to 38 inches. Depth to bedrock is greater than 60 inches. Rock fragments, mainly stones, cobbles, and gravel, range from 5 to 35 percent, by volume, throughout the soil.

The O horizon, absent in some pedons, ranges from slightly decomposed to highly decomposed plant material. Reaction is extremely acid or very strongly acid.

The A horizon is present in some pedons. It is neutral or has hue of 5YR to 10YR, value of 1 to 3, and chroma of 0 to 3. Texture is sandy loam, fine sandy loam, very fine sandy loam, loam or silt loam in the fine-earth fraction. Reaction ranges from extremely acid to strongly acid.

The E horizon has hue of 5YR to 10YR, value of 5 to 7, and chroma of 1 or 2. Texture is loamy fine sand, sandy loam, fine sandy loam, loam, or silt loam in the fine-earth fraction. Reaction ranges from extremely acid to strongly acid.

The Bh horizon has hue of 5YR or 7.5YR, value of 2 or 3, and chroma of 1 or 2. Texture is sandy loam, fine sandy loam, loam, or silt loam in the fine-earth fraction. Reaction ranges from extremely acid to strongly acid.

The Bhs horizon has hue of 5YR or 7.5YR, and value and chroma of 3. Texture and reaction are similar to the Bh horizon.

The Bs horizon has hue of 5YR or 7.5YR, value of 3 to 5, and chroma of 3 or 4. Texture is sandy loam, fine sandy loam, loam or silt loam in the fine-earth fraction. Reaction ranges from extremely acid to strongly acid.

A BC horizon is present in some pedons. It has hue of 7.5YR to 2.5Y, value of 3 to 6, and chroma of 1 to 4. Texture is loamy fine sand through silt loam in the fine-earth fraction. Reaction is very strongly acid to moderately acid.

The Cd horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 1 through 3. Texture is loamy sand, loamy fine sand, coarse sandy loam, sandy loam, fine sandy

loam, or loam in the fine-earth fraction. It is massive or platy, and consistence is firm or very firm. Reaction is strongly acid or moderately acid. Some pedons have a thin C horizon above the Cd horizon.

Aeric Epiaquepts

Soils of the Aeric Epiaquepts are very deep, somewhat poorly drained and poorly drained. They formed in a loamy mantle over clayey lacustrine sediments on lake plains and terraces. Slopes range from 0 to 3 percent.

Aeric Epiaquepts are in a drainage sequence with moderately well drained Elmridge soils. They are near silty Unadilla, Scio and Tonawanda soils, and clayey Hudson, Rhinebeck and Madalin soils.

Typical pedon of Aeric Epiaquepts with a loam surface, in Fulton County, town of Mayfield, 3,000 feet south of the intersection of State Routes 29 and 29A, in a hemlock forest area south of the golf course; USGS Broadalbin topographic quadrangle; NAD83; lat. 43 degrees, 02 minutes, 26.5 seconds N. and long. 74 degrees, 14 minutes, 29.8 seconds W.

Oe—0 to 1 inch, black (10YR 2/1) moderately decomposed plant material; moderately fine granular structure; very friable; many very fine, and few fine and medium roots; extremely acid; abrupt wavy boundary.

A—1 to 4 inches, very dark gray (10YR 3/1) loam, dark gray (7.5YR 4/1) dry; weak fine subangular blocky structure parting to moderate fine granular; very friable; many very fine and fine, and few medium roots; extremely acid; clear irregular boundary.

BA—4 to 8 inches, brown (10YR 4/3) and 20 percent dark grayish brown (10YR 4/2) loam; weak medium subangular blocky structure; very friable; common fine faint very dark grayish brown (10YR 3/2) organic stains in pores; many very fine and fine and few medium roots; strongly acid; clear irregular boundary.

Bw—8 to 13 inches, dark yellowish brown (10YR 4/4) loam; weak medium and coarse subangular blocky structure; very friable; common very fine and fine, and few medium and coarse roots; trace of fine gravel; common medium distinct yellowish brown (10YR 5/6) and few medium distinct strong brown (7.5YR 4/6) soft masses of iron accumulation; few fine and medium faint light olive brown (2.5Y 5/3) iron depletions; strongly acid; clear smooth boundary.

Bg13— to 33 inches, grayish brown (2.5Y 5/2) fine sandy loam; weak medium and coarse subangular blocky structure; friable; few very fine roots; 1 percent fine gravel; few medium and coarse prominent strong brown (7.5YR 4/6) firm nodules; many medium and coarse prominent yellowish brown (10YR 5/6) soft masses of iron accumulation in the matrix; few fine prominent brown (7.5YR 4/4) soft masses of iron accumulation in pores and along root channels; strongly acid; abrupt smooth boundary.

2C1—33 to 45 inches, gray (2.5Y 5/1) silty clay; massive; firm; common medium and coarse prominent light olive brown (2.5Y 5/6) soft masses of iron accumulation; common medium distinct gray (N 5/0) iron depletions; slightly alkaline, very slightly effervescent; clear smooth boundary.

2C2—45 to 60 inches, gray (N 5/0) silty clay; massive; very firm; common medium prominent light olive brown (2.5Y 5/6) and yellowish brown (10YR 5/6) soft masses of iron accumulation; slightly alkaline, slightly effervescent.

The thickness of the solum and depth to the underlying fine textured material ranges from 18 to 40 inches. Rock fragments range from 0 to 5 percent in the solum and from 0 to 3 percent in the 2C horizon. Reaction ranges from extremely acid to neutral in the surface, strongly acid to neutral in the subsoil, and moderately acid through moderately alkaline in the 2C.

The O horizon, where present, commonly has hue of 7.5YR or 10YR, value of 2 through 3 and chroma of 1 or 2. It is commonly moderately decomposed plant material.

The A horizon has hue of 7.5YR to 2.5Y, value of 2 to 4, and chroma of 1 to 3. The texture is sandy loam to loam. Structure is weak or moderate granular.

Some pedons have an Eg horizon with hue 10YR or 2.5Y, value of 4 to 6, and chroma of 1 or 2. Texture and structure are similar to the A horizon.

The BA horizon has hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 2 to 4. Texture is sandy loam, fine sandy loam, very fine sandy loam or loam. Structure is weak or moderate granular or subangular blocky. Consistence is very friable or friable.

The B horizon has hue of 7.5YR to 5Y, value of 4 to 6 and chroma of 1 to 4. Texture is sandy loam through loam. The horizon is massive or has weak or moderate subangular blocky structure, and is very friable to firm.

Some pedons have silty or clayey 2B horizons. They are massive or have blocky, platy, or prismatic structure, and are friable or firm. Some pedons have thin sandy layers.

The 2C horizon is neutral or has hue of 7.5YR to 5Y, value of 3 to 6, and chroma of 0 to 4. Texture is silty clay loam through clay. The horizon is massive or has inherent plate-like divisions, and is firm or very firm.

Correlation Note: Map unit 187A was intended to be the Shaker series. It was declined to add the somewhat poorly drained class to the series range to keep Shaker ‘always hydric’. The map unit is changed to a ‘Taxon Above Family’ unit, Aeric Epiaquepts.

Agawam Series

Soils of the Agawam series are very deep and well drained. They formed in water-sorted sand on glacial outwash plains and terraces. Slopes range from 0 to 8 percent.

Agawam soils are in a drainage sequence with moderately well drained Ninigret soils. Agawam soils are near gravelly Hinckley and sandy Windsor soils which lack a loamy mantle.

Typical pedon of Agawam fine sandy loam, 3 to 8 percent slopes, in Fulton County, town of Mayfield, in a hayfield, 25 feet southwest of a laneway, about 1,800 feet south of NY Route 29, at a point about 2,000 feet west of Route 29A; USGS Broadalbin topographic quadrangle; WGS83; lat. 43 degrees, 02 minutes, 27.2 seconds N. and long. 74 degrees, 14 minutes, 54.7 seconds W.

Ap—0 to 10 inches, very dark grayish brown (10YR 3/2) fine sandy loam; dark grayish brown (10YR 4/2) dry; weak medium subangular blocky structure parting to moderate medium granular; very friable; many very fine and few fine roots; slightly acid (limed); abrupt smooth boundary.

Bw1—10 to 20 inches, brown (7.5YR 4/4) fine sandy loam; weak coarse and medium subangular blocky structure; very friable; many very fine roots; 1 percent gravel; slightly acid (limed); clear wavy boundary.

Bw2—20 to 26 inches, dark yellowish brown (10YR 4/4) fine sandy loam; weak coarse and medium subangular blocky structure; very friable; common fine and medium distinct very dark gray (10YR 3/1) stains from soft dark shale parent material; common very fine roots; slightly acid (limed); abrupt wavy boundary.

2C1—26 to 34 inches, light olive brown (2.5Y 5/3) stratified fine sand and sand; massive; very friable; few very fine roots; common fine and medium prominent strong brown (7.5YR 5/6) soft masses of iron accumulation; neutral (limed); clear wavy boundary.

2C2—34 to 42 inches, light olive brown (2.5Y 5/3) stratified fine sand and sand; massive; very friable; common coarse prominent strong brown (7.5YR 5/6) soft

masses of iron accumulation, and few fine prominent brown (7.5YR 4/4) masses of iron accumulation in pores; neutral (limed); clear wavy boundary.
2C3—42 to 62 inches, grayish brown (2.5Y 5/2) stratified fine sand; single grain; loose; few coarse prominent strong brown (7.5YR 5/6) and common medium and coarse prominent yellowish brown (10YR 5/6) soft masses of iron accumulation; neutral (limed).

The thickness of the solum ranges from 15 to 35 inches. Depth to bedrock is greater than 60 inches. Rock fragments range from 0 to 10 percent by volume in the surface, 0 to 30 percent in the B and C horizons above a depth of 40 inches, and 0 to 60 percent below. Reaction ranges from very strongly acid to slightly acid throughout the soil, unless the soil is limed.

The Ap horizon has hue of 7.5 YR to 2.5Y, value of 3 or 4, and chroma of 2 to 4. Texture is fine sandy loam, very fine sandy loam, or loam.

The upper part of the Bw horizon has hue of 5YR to 10YR, value of 4 to 7, and chroma of 3 to 8. The lower part has hue of 10YR to 5Y with value and chroma ranges the same as the upper part. Texture is fine sandy loam, very fine sandy loam, or loam in the upper part and fine sandy loam or very fine sandy loam in the lower part. Structure is weak or moderate granular or subangular blocky or the horizon is massive.

A BC horizon of sandy loam is present in some pedons. Color and texture ranges are the same as the lower part of the Bw. Structure is weak or moderate granular or the horizon is massive. It is up to 5 inches thick.

The C horizon has hue of 10YR to 5Y, value of 3 to 7, and chroma of 1 to 4. It is stratified loamy fine sand, loamy sand, fine sand, sand or their gravelly analogues and is very gravelly below 40 inches in some pedons. Consistence is very friable or loose.

Correlation Note: Map units 160A and 160B have a color in the upper solum due to dissipated dark shale fragments that is darker than typical for the Agawam series. This should not significantly affect use and management on a local basis for most purposes.

Allagash Series

Soils of the Allagash series are very deep and well drained. They formed in glacial outwash derived dominantly from metamorphic rocks. They are on outwash plains and terraces in the Adirondack foothills. Slopes range from 3 to 35 percent.

Allagash soils are near gravelly Colton soils. Allagash soils are near sandy Adams and Croghan soils which lack a thick loamy mantle. Allagash soils are near Berkshire and Monadnock soils which formed in glacial till.

Typical pedon of Allagash fine sandy loam, strongly sloping, in Saratoga County, town of Providence, 1,700 feet north-northwest of South Line Road, 0.7 mile west of Antioch Road, along the north boundary of a sand and gravel borrow pit; USGS Galway topographic quadrangle; NAD27; lat. 43 degrees, 05 minutes, 31 seconds N. and long. 74 degrees, 00 minutes, 24 seconds W.

Oe—0 to 1 inch, black (5YR 2.5/1) moderately decomposed plant material.
E—1 to 3 inches, light brownish gray (10YR 6/2) fine sandy loam; weak very fine granular structure; very friable; common fine roots; very strongly acid; abrupt smooth boundary.
Bh—3 to 5 inches, very dusky red (2.5YR 2.5/2) loam; moderate fine subangular blocky structure; friable; strongly smeary; many fine and medium roots; very strongly acid; clear wavy boundary.
Bs—5 to 19 inches, yellowish red (5YR 4/6) loam; weak fine subangular blocky structure; friable; moderately smeary; many fine and medium roots; strongly acid; clear wavy boundary.

BC—19 to 35 inches, yellowish brown (10YR 5/6) fine sandy loam; weak fine and medium subangular blocky structure; friable; common fine and few medium roots; 5 percent rock fragments; strongly acid; clear wavy boundary.
2C1—35 to 44 inches, light olive brown (2.5Y 5/6) fine sand; massive; very friable; moderately acid; clear smooth boundary.
2C2—44 to 72 inches, light yellowish brown (2.5Y 6/4) fine sand; massive; very friable; slightly acid.

The thickness of the solum ranges from 15 to 36 inches. Depth to bedrock is more than 60 inches. The mineral solum is fine sandy loam, very fine sandy loam, loam, or silt loam. The substratum is loamy fine sand, loamy sand, fine sand, or sand except some pedons have gravelly or very gravelly strata below depths of 40 inches. Rock fragments range from 0 to 15 percent by volume above a depth of 40 inches, including thin strata of fine gravel in some pedons. Reaction ranges from very strongly acid to slightly acid throughout the mineral material, unless the soil is limed.

Some areas have an Ap horizon 5 to 10 inches thick with hue of 10YR, value of 3 or 4, and chroma of 2 to 4. It has granular structure and consistence is very friable or friable.

The O horizon has hue of 5YR to 10YR, value of 2 or 2.5, and chroma of 1 or 2. It has weak or moderate fine granular structure.

The E horizon has hue of 5YR to 10YR, value of 5 to 7, and chroma of 1 or 2. It has granular or subangular blocky structure and consistence is very friable or friable.

The Bh horizon has hue of 2.5YR to 7.5YR, value of 2 to 4, and chroma of 2 or 3. Some pedons have a Bhs horizon with hue of 2.5YR or 5YR with value and chroma of 2 or 3. The Bs horizon has hue of 5YR to 10YR, value of 4 to 6, and chroma of 4 to 8. The B horizons have granular or subangular blocky structure and consistence is very friable or friable.

The BC horizon has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 3 to 6. It has granular or subangular blocky structure and consistence is very friable or friable.

Some pedons have a massive C layer, up to 8 inches thick, with color, texture and consistence like the BC horizon.

The 2C horizon has hue of 2.5Y or 5Y, value of 5 or 6, and chroma of 2 to 6. It is massive or single grain and consistence is loose to very friable.

Alton Series

Soils of the Alton series are very deep and somewhat excessively drained or well drained. They formed in water sorted gravelly deposits on outwash terraces, kames, alluvial fans and remnant beach ridges. Slopes range from 3 to 25 percent.

Alton soils are in a drainage sequence with somewhat poorly drained Fredon soils. They are near sandy Windsor and Merrimac soils and moderately well drained Ninigret soils.

Typical pedon of Alton gravelly loam, 8 to 15 percent slopes, Fulton County, town of Mayfield, at the western edge of a gravel pit, about 3,000 feet northwest along access road from NY Route 29; USGS Gloversville topographic quadrangle; NAD83; lat. 43 degrees, 02 minutes, 13.39 seconds N. and long. 74 degrees, 17 minutes, 36.04 seconds W.

A— 0 to 5 inches, very dark gray (10YR 3/1), light brownish gray (10YR 6/2) dry, gravelly loam; weak fine and medium granular structure; friable; 15 percent rock fragments; many fine and very fine roots and few medium and coarse roots; very strongly acid; abrupt smooth boundary.
BE—5 to 8 inches, dark yellowish brown (10YR 4/4) gravelly loam; weak fine and medium subangular blocky structure; friable; 20 percent rock fragments; common fine and very fine roots; strongly acid; clear wavy boundary.

Bw1—8 to 15 inches, strong brown (7.5YR 4/6) gravelly sandy loam; weak medium subangular blocky structure; friable; 25 percent rock fragments; common fine and very fine roots; strongly acid; clear wavy boundary.
Bw2—15 to 19 inches, dark yellowish brown (10YR 4/6) gravelly sandy loam; weak fine and medium subangular blocky structure; friable; 30 percent rock fragments; common fine and very fine roots; strongly acid; clear wavy boundary.
BC—19 to 25 inches, yellowish brown (10YR 5/4) very gravelly sandy loam; massive; friable; 40 percent rock fragments; common masses of soft black (10YR 2/1) shale; few fine and very fine roots; strongly acid; gradual wavy boundary.
2C1—25 to 42 inches, olive brown (2.5Y 4/4) very gravelly loamy sand; single grain; loose; 45 percent rock fragments including 5 percent cobbles); few fine and very fine roots; neutral; abrupt wavy boundary.
2C2—42 to 46 inches, light olive brown (2.5Y 5/4) sand; single grain; loose; few very fine roots; neutral; abrupt wavy boundary.
3C3—46 to 72 inches, dark olive brown (2.5Y 3/3) very gravelly sand; single grain; loose; 55 percent rock fragments; slightly alkaline; very slightly effervescent.

The thickness of the solum ranges from 25 to 60 inches. Carbonates are within the soil, at depths between 40 and 80 inches. Depth to bedrock is greater than 60 inches. The rock fragment content ranges from 10 to 50 percent in the A and upper B horizons, and from 35 to 60 percent in the lower B and C horizons.

The Ap or A horizon has hue of 10YR or 7.5YR, value of 3 to 5, and chroma of 1 to 4, with chroma of 1 limited to A horizons. Texture is loamy sand to loam in the fine-earth fraction. Reaction is very strongly acid or strongly acid.

The BE has hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 3 to 5. Texture is sandy loam to loam in the fine-earth fraction. Reaction ranges from very strongly acid to moderately acid.

The B horizon has hue of 2.5YR to 10YR, value of 3 to 6, and chroma of 3 to 6. Texture is loam to sandy loam, with loam above 20 inches only. Reaction ranges from strongly acid to neutral.

The BC horizon has hue of 5YR to 2.5Y, value of 3 to 5 and chroma of 2 to 4. Texture is fine sandy loam or sandy loam. Reaction ranges from strongly acid to neutral.

The C horizon has hue of 5YR to 2.5Y, value of 4 or 5, and chroma of 2 to 4. Value of 3 is allowed where dark shale is present. It is stratified gravelly sand, loamy sand and sandy loam. Layers of non-gravelly sand, silt or clay are allowed below 40 inches. Reaction ranges from neutral to slightly alkaline, and ranges to moderately alkaline below 40 inches.

Angola Series

Angola series are moderately deep, somewhat poorly drained soils. They formed in a 20 to 40 inch deep mantle of till overlying shale, siltstone, limy sandstone or limestone bedrock. Slopes range from 0 to 8 percent.

Angola soils are near the very deep Mohawk, Manheim, and Darien soils. Angola soils are also near well drained Palatine, Galway, and Farmington soils.

Typical pedon of Angola silt loam, 0 to 8 percent slopes, Fulton County, town of Johnstown, 25 feet south of a hedgerow, 800 feet east of Indian Road at a point 560 feet northeast of the Montgomery County line; USGS Randall, NY topographic quadrangle; WGS84; lat. 42 degrees, 59 minutes, 11.1 seconds N. and long. 74 degrees, 27 minutes, 47.2 seconds W.

Ap —0 to 10 inches, very dark grayish brown (10YR 3/2) silt loam; light brownish gray (10YR 6/2) dry; moderate medium fine subangular blocky structure parting to moderate fine and medium granular; friable; many very fine roots and few fine and

medium roots; 4 percent gravel, 1 percent cobbles; neutral (limed); abrupt smooth boundary.

Eg—10 to 14 inches, grayish brown (10YR 5/2) silty clay loam; weak medium subangular blocky structure; firm; many very fine roots and few fine and medium roots; 4 percent gravel, 1 percent cobbles; 1 percent patchy faint clay films on ped faces; common medium prominent yellowish brown (10YR 5/6) soft masses of iron accumulation; common medium faint gray (10YR 5/1) iron depletions; neutral; clear wavy boundary.

Bt—14 to 24 inches, brown (10YR 5/3) silty clay loam; moderate medium and fine subangular blocky structure; firm; few very fine and fine roots; 5 percent gravel, 2 percent cobbles, 1 percent stones; 5 percent patchy distinct dark gray (10YR 4/1) clay films on ped faces and pore surfaces; many fine distinct yellowish brown (10YR 5/6) soft masses or iron accumulation; grayish brown (10YR 5/2) and gray (10YR 5/1) iron depletions on ped faces; slightly alkaline, very slightly effervescent in lower part; 20 percent black (10YR 2/1) soft masses derived from shale fragments; clear smooth boundary.

BCg—24 to 29 inches, gray (10YR 5/1) silty clay loam; weak medium subangular blocky structure; firm; few very fine roots; 5 percent gravel; few patchy faint clay films on pore surfaces; many medium and coarse prominent yellowish brown (10YR 5/6) soft masses of iron accumulation; few soft masses of calcium carbonate accumulation; slightly alkaline, strongly effervescent; clear wavy boundary.

2C—29 to 32 inches, brown (10YR 5/3) gravelly loam; massive with thin and medium plate-like divisions; firm; 10 percent gravel, 3 percent cobbles, 2 percent stones; common medium and coarse distinct yellowish brown (10YR 5/6) soft masses of iron accumulation; few soft masses of calcium carbonate accumulation; common medium and coarse faint grayish brown (10YR 5/2) iron depletions; moderately alkaline, violently effervescent; abrupt smooth boundary.

2R—32 inches, grayish brown (10YR 5/2) dolomitic limestone bedrock.

The thickness of the solum and depth to bedrock range from 20 to 40 inches. Rock fragments range from 0 to 30 percent in the A horizon, 2 to 35 percent in the E and B horizons, and from 10 to 50 percent in the C horizon. The soil ranges from moderately acid to slightly alkaline in the solum and from slightly acid to moderately alkaline in the C horizon.

The Ap horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 1 to 3. The texture is silt loam or silty clay loam in the fine-earth fraction. Structure is granular or subangular blocky. Consistence is friable or firm.

The E or Eg horizon has hue of 7.5 YR to 5Y, value of 4 to 6, and chroma of 1 to 3. Texture in the fine-earth fraction is silt loam, silty clay loam, loam or clay loam, with channery analogues. They have weak or moderate, granular or subangular blocky structure. Consistence is friable or firm.

The B or Bt horizons have hue of 7.5YR to 5Y, value of 3 to 6, and chroma of 1 to 4. Texture is silt loam, silty clay loam, loam or clay loam in the fine-earth fraction. Structure is moderate or strong, subangular blocky. Consistence is friable or firm.

The BC or BCg horizon has hue of 7.5YR to 5Y, value of 3 to 6, and chroma of 1 to 4. Texture is silt loam, silty clay loam, loam or clay loam in the fine-earth fraction. Structure is weak subangular blocky or platy. Consistence is friable or firm.

The C or 2C horizon has hue of 7.5YR to 5Y, value of 2 to 6 and chroma of 1 to 4. Texture is silt loam, silty clay loam, loam or clay loam in the fine-earth fraction. Consistence is friable or firm.

Appleton Series

Soils of the Appleton series are very deep and somewhat poorly drained. They formed in loamy glacial till derived mainly from shale, fine grained sandstone and limestone. They are on till plains and along foot slopes of drumlins in the Mohawk Valley. Slopes range from 0 to 8 percent.

Appleton soils are in a drainage sequence with well drained Lansing and poorly drained Ilion soils. Appleton soils are near Mohawk and Manheim soils which are darker colored due to black shale in the substratum. Appleton soils are also associated with moderately deep Galway and Palatine soils.

Typical pedon of Appleton silt loam, 3 to 8 percent slopes, in a hayfield, Fulton County, town of Oppenheim, 800 feet northeast of the trail leading from Twin Church Road, 0.8 mile west of the intersection with County Route 108; USGS Oppenheim, NY quadrangle; NAD27; lat. 43 degrees, 03 minutes, 01 seconds N. and long. 74 degrees, 44 minutes, 50 seconds W.

Ap—0 to 8 inches; dark brown (10YR 3/3) silt loam; pale brown (10YR 6/3) dry; weak fine subangular blocky structure parting to weak fine granular; friable; many very fine roots; 5 percent gravel, 2 percent cobbles; neutral (limed); abrupt wavy boundary.

BE—8 to 15 inches; brown (10YR 4/3) loam; weak fine and medium subangular blocky structure; friable; very few faint patchy clay films on ped faces; common very fine roots; 5 percent gravel, common fine very dark grayish brown (10YR 3/2) krotovina; common medium faint grayish brown (10YR 5/2) iron depletions and common fine and medium prominent strong brown (7.5YR 5/6) soft masses of iron accumulation in the matrix; 2 percent cobbles and stone; neutral; clear wavy boundary.

Bt/E—15 to 24 inches; 70 percent yellowish brown (10YR 5/4) loam, and 20 percent brown (10YR 5/3) fine sandy loam; grayish brown (10YR 5/2) ped faces; weak fine and medium subangular blocky structure; firm; common soft black (10YR 2/1) masses from shale; very few patchy faint clay films on ped faces and in some pores; common very fine roots; 5 percent gravel, 2 percent cobbles and stone; many medium distinct strong brown (7.5YR 5/6) and yellowish brown (10YR 5/6) iron accumulations in the matrix; neutral; clear smooth boundary.

Bt—24 to 32 inches; yellowish brown (10YR 5/4) loam; weak fine and medium subangular blocky structure; firm; few discontinuous distinct clay films on pore surfaces and ped faces; many soft black (10YR 2/1) masses from shale; few very fine roots; 5 percent gravel, 2 percent cobbles and stone; common fine and medium distinct grayish brown (10YR 5/2) iron depletions and many fine and medium distinct yellowish brown (10YR 5/6) iron accumulations in the matrix; neutral; abrupt wavy boundary.

C—32 to 72 inches; light olive brown (2.5Y 5/3) gravelly fine sandy loam; massive with medium and thick plate—like divisions; very firm; 15 percent gravel, 5 percent cobbles and 5 percent stones; common fine prominent yellowish brown (10YR 5/6) soft masses of iron accumulation in the matrix; slightly alkaline, strongly effervescent.

The thickness solum ranges from 20 to 36 inches and depth to carbonates ranges from 18 to 32 inches. Redoximorphic features consisting of iron accumulation or depletions occur within 20 inches of the mineral soil surface. Depth to bedrock is greater than 60 inches. Content of rock fragments, mainly gravel, channers and cobbles, range from 5 to 35 percent by volume and generally increase with depth. In some pedons, rock fragments range to 55 percent in the lower part of the substratum.

The A or Ap horizons have hue of 10YR, value of 2 to 4 and chroma of 1 or 3. Texture in the fine-earth fraction is loam, silt loam or fine sandy loam. Reaction ranges from moderately acid to neutral.

The E horizon, where present, has hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 1 to 3. Texture in the fine-earth fraction is very fine sandy loam, fine sandy loam, loam or silt loam. Reaction ranges from moderately acid to slightly alkaline.

The BE and B/E horizon have colors and textures similar to the E and B horizons.

The Bt horizon has hue of 5YR to 2.5Y, value of 3 to 6, and chroma of 2 to 4. Iron depletions and concentrations are few to many. Faces of peds have chroma of 2. Texture of the fine-earth fraction is loam, sandy clay loam, or silt loam. Clay content is between 18 and 27 percent. Some pedons lack interfingering of E material into the upper part of the B horizon. Reaction of the Bt horizon ranges from moderately acid to slightly alkaline. The C horizon has hue of 5YR to 2.5Y, value of 3 to 6, and chroma of 2 to 4. Texture of the fine-earth fraction is fine sandy loam, loam, or silt loam. Structure is platy or the horizon is massive. Consistence is firm or very firm. Reaction is slightly or moderately alkaline. Some pedons have a 2C horizon below a depth of 40 inches

Aquents

Aquents consist of very deep, very poorly drained soils composed of deposits of lacustrine, glacial outwash or till. They have shallow water on the surface essentially all year, under normal conditions. These soils are on low lying positions of landscapes or adjacent to bodies of water. Slopes are less than one percent.

Aquents are mapped with Saprists which have a thicker layer of well decomposed organic material. Aquents are commonly near Catden, Timakwa, Scarboro, Cheektowaga, Illion, and Fonda soils on the landscape. Saprists and Aquents are typically ponded throughout the year compared to these associated soils which are either inundated for shorter periods or are not ponded at all.

Aquents are highly variable; therefore, a typical pedon is not provided. Aquents have either a thin organic layer or a mineral layer high in organic matter overlying a mineral substratum. The depth to bedrock generally is more than 60 inches. Rock fragments range from 0 to 35 percent by volume in the surface, and from 0 to 65 percent in the substratum.

The surface layer is typically highly decomposed plant material 9 inches thick. It has hue of 10YR to 5Y (or it is neutral), value of 2 to 4, and chroma of 0 to 2. Texture of the mineral surface, where present, ranges from loamy sand to silty clay. Reaction is very strongly acid to neutral.

The substratum has hue of 10YR to 5Y (or it is neutral), value of 3 to 6, and chroma of 2 or less. Texture ranges from sand to silty clay in the fine-earth fraction. Reaction is very strongly acid to moderately alkaline.

Becket Series

The Becket series consists of very deep, well drained soils on glacial till plains. These soils formed in loamy till deposited as a friable mantle that overlies a dense, sandy till. Slopes range from 3 to 60 percent.

Becket soils are in a drainage sequence with the moderately well drained Skerry soils and the somewhat poorly drained Adirondack soils. Other associated soils include the Adams, Colton, Croghan, Lyman, Monadnock, Naumburg, Sabattis, and Tunbridge soils. Becket soils have a dense substratum, which is not present in Adams, Colton, Croghan, Monadnock, Naumburg, and Sabattis soils. Becket soils are deeper to bedrock than the Lyman and Tunbridge soils.

Typical pedon of Becket sandy loam, in a map unit of Becket-Tunbridge-Skerry complex, 3 to 15 percent slopes, rocky, very bouldery, in Hamilton County, town of

Long Lake, 1/4 mile west of Chub Lake; USGS Big Moose 15 minute topographic quadrangle; NAD27; lat. 43 degrees 49 minutes 41 seconds N. and long. 74 degrees 47 minutes 38 seconds W.

Oe—0 to 1 inch; dark reddish brown (5YR 2.5/2) moderately decomposed organic matter; (fibers: 80 percent unrubbed; 50 percent rubbed); weak very fine granular structure; very friable; many fine roots; 5 percent rock fragments (pebbles to stones); extremely acid; abrupt wavy boundary.

Oa—1 to 3 inches; black (5YR 2.5/1) highly decomposed organic matter; (fibers 25 percent unrubbed, 5 percent rubbed); weak fine granular structure; very friable; many fine and medium roots; 5 percent rock fragments (pebbles to stones); extremely acid; abrupt wavy boundary.

E— 3 to 5 inches; gray (5YR 5/1) to brown (7.5YR 4/2) sandy loam; weak fine subangular blocky structure; very friable; few fine and medium roots; 5 percent rock fragments (pebbles to stones); extremely acid; abrupt irregular boundary.

Bh—5 to 8 inches; dark reddish brown (5YR 2.5/2—3/2) sandy loam; moderate medium subangular blocky structure; friable; many fine roots and common medium roots; 12 percent rock fragments (pebbles to stones); extremely acid; abrupt irregular boundary.

Bs—8 to 15 inches; dark red (2.5YR 3/6) and reddish brown (5YR 4/4) gravelly sandy loam; weak fine subangular blocky structure; very friable; common fine and medium roots; 15 percent rock fragments,(pebbles to stones); very strongly acid; clear wavy boundary.

BC—15 to 26 inches; dark yellowish brown (10YR 4/4) gravelly fine sandy loam; weak medium subangular blocky structure; very friable; few fine and medium roots; 15 percent rock fragments (5 percent fine gravel and 5 percent stones); very strongly acid; clear smooth boundary.

Cd1—26 to 38 inches; brown (10YR 4/3) to light brownish gray (10YR 6/2) gravelly loamy fine sand; 20 percent fine sandy loam plates, moderate thick plate-like divisions; very firm; 15 percent rock fragments (10 percent pebbles and cobbles, 5 percent stones); very strongly acid; clear wavy boundary.

Cd2—38 to 72 inches; brown (10YR 4/3) gravelly loamy sand; 20 percent fine sandy loam plates; weak thick plate-like divisions; firm; 15 percent rock fragments (10 percent pebbles and cobbles, 5 percent stones); very strongly acid.

Mineral solum thickness ranges from 20 to 36 inches. Reaction ranges from extremely acid to slightly acid in the solum, and from very strongly acid to neutral in the substratum. Rock fragment are dominantly gravel and range from 5 to 30 percent in the solum and from 5 to 40 percent in the substratum. Rock fragments constitute less than 35 percent of the particle-size control section. Ortstein ranges from 0 to 20 percent of the spodic horizon.

The O horizon is neutral or has hue of 2.5YR to 10YR, value of 2 to 4, and chroma of 0 to 4. It is slightly, moderately, or highly decomposed plant material.

Some pedons have an A horizon that has hue of 5YR to 10YR, value of 2 to 4, and chroma of 1 to 3. It is up to 6 inches thick.

Disturbed areas have an Ap horizon with hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 2 to 4. The A and Ap horizons are dominantly fine sandy loam, but include loam and sandy loam in the fine-earth fraction. Structure is granular.

The E horizon has hue of 5YR to 2.5Y, value of 4 to 7, and chroma of 1 or 2. Texture is fine sandy loam, sandy loam, or loamy sand in the fine-earth fraction. Structure is granular or subangular blocky or the horizon is massive.

The Bh horizon has hue of 2.5YR to 10YR, value of 2 to 3, and chroma of 1 to 4. Texture is dominantly fine sandy loam, but includes loam and sandy loam in the fine-earth fraction. Structure is granular or subangular blocky or the horizon is massive.

The Bhs horizon, where present, has hue of 2.5YR to 7.5YR, value of 2 to 3, and chroma of 1 to 3. Texture is dominantly fine sandy loam, but includes loam and sandy loam in the fine-earth fraction. Structure is granular or subangular blocky or the horizon is massive.

The Bs horizon has hue of 2.5YR to 10YR, value of 3 to 8 and chroma of 2 to 8. Texture is fine sandy loam or sandy loam in the fine-earth fraction. Structure is granular or subangular blocky or the horizon is massive.

The BC horizon has hue of 10YR to 5Y, value and chroma of 3 to 6. Texture is fine sandy loam, sandy loam, loamy fine sand, or loamy sand in the fine-earth fraction. Structure is granular, platy, or subangular blocky or the horizon is massive.

The Cd horizon has hue of 10YR to 5Y, value of 4 to 7, and chroma of 2 to 6. It is comprised of loamy layers and sandy pockets and lenses with horizontal orientation, with a composite texture of loamy sand, loamy fine sand, sandy loam, fine sandy loam, or their gravelly analogues. The lenses are coarse, medium, or fine sand and are 1/8 to 3 inches thick. They make up 20 percent or more of the horizon. They are massive with or without plate-like divisions. Consistence is firm or very firm. Some pedons have friable C horizons up to 8 inches thick.

Berkshire Series

Soils of the Berkshire series are very deep and well drained. They formed in bouldery glacial till in the Adirondack foothills. Slopes range from 3 to 60 percent.

Berkshire soils are near moderately well drained Skerry soils and somewhat poorly drained Adirondack soils in areas where a moderately deep, dense substratum occurs. They are near moderately deep to bedrock Tunbridge soils and shallow to bedrock Lyman soils. Also nearby are very gravelly and sandy Colton soils as well as loamy over sandy Allagash soils on outwash plains and terraces.

Typical pedon of Berkshire loam, steep, very bouldery, in Saratoga County, town of Edinburg, 10 feet northeast of a logging access road, 2.4 miles south of Turner Road, 0.9 mile east of South Shore Road (County Route 7); USGS Edinburg topographic quadrangle; NAD27; lat. 43 degrees, 14 minutes, 46 seconds N. and long. 74 degrees, 02 minutes, 51 seconds W.

Oe—0 to 2 inches, moderately decomposed mat of hardwood leaves and pine needles.

A—2 to 5 inches, black (5YR 2.5/1) loam; moderate fine and medium subangular blocky structure; very friable; many fine roots; 5 percent rock fragments; extremely acid; abrupt smooth boundary.

E—5 to 6 inches, brown (7.5YR 5/2) fine sandy loam; moderate medium granular structure; friable; many fine and medium roots; 5 percent rock fragments; extremely acid; abrupt smooth boundary.

Bhs—6 to 9 inches, dark reddish brown (5YR 3/3) loam; weak fine and medium subangular blocky structure; friable; moderately smeary; many fine, common medium roots; 10 percent rock fragments; extremely acid; gradual irregular boundary.

Bs—9 to 21 inches, dark brown (7.5YR 3/4) and dark yellowish brown (10YR 4/6) loam; weak fine subangular blocky structure; friable; slightly smeary; common fine roots; 10 percent rock fragments; very strongly acid; clear wavy boundary.

BC1—21 to 30 inches, dark yellowish brown (10YR 4/4) fine sandy loam; few coarse dark brown (7.5YR 3/4) root stains; weak medium subangular blocky structure; friable; 10 percent rock fragments; strongly acid; clear wavy boundary.

BC2—30 to 32 inches, light olive brown (2.5Y 5/4) gravelly fine sandy loam; few fine faint light olive brown (2.5Y 5/6) stains; weak fine subangular blocky structure; friable; 20 percent rock fragments; strongly acid; clear smooth boundary.

C—32 to 72 inches, yellowish brown (10YR 5/4) gravelly fine sandy loam; few fine distinct strong brown (7.5YR 5/6) stains; weak medium platy structure; friable, grading to firm; 20 percent rock fragments; strongly acid.

The thickness of the solum ranges from 16 to 36 inches. Rock fragment content ranges from 5 to 20 percent in the A horizon and from 5 to 35 percent in the subsoil and substratum.

The O horizon is neutral or has hue of 2.5YR to 10YR, value of 2 to 3, and chroma of 0 to 2. It is slightly, moderately, or highly decomposed plant material. Reaction ranges from extremely acid to moderately acid.

The A horizon is neutral or has hue of 5YR to 10YR, value of 2 to 3, and chroma of 0 to 3. It is up to 5 inches thick. The Ap horizon, where present, has hue of 10YR to 5YR, value and chroma of 2 to 4. Texture of the fine-earth fraction of the Ap or A horizon is loam, very fine sandy loam, fine sandy loam, or sandy loam. Reaction ranges from extremely acid to moderately acid, unless the soil is limed.

The E horizon is neutral or has hue of 2.5YR to 2.5Y, value of 4 to 6, and chroma of 0 to 2. Texture of the fine-earth fraction is loam, very fine sandy loam, fine sandy loam or sandy loam. Reaction ranges from extremely acid to moderately acid.

The Bhs horizon has a hue of 2.5YR to 7.5YR and value and chroma of 3 or less. Some pedons have a Bh horizon with hue of 7.5YR or 10YR, value of 2 to 3, and chroma of 1. Bhs and Bh horizons are up to 4 inches thick. Texture is loam, very fine sandy loam, fine sandy loam, or sandy loam in the fine-earth fraction. Structure is weak granular or subangular blocky. Reaction ranges from extremely acid to moderately acid.

The Bs horizon has hue of 5YR to 10YR, value of 3 to 5, and chroma of 4 to 8. Texture is loam, very fine sandy loam, fine sandy loam, or sandy loam in the fine-earth fraction. Structure is weak granular or subangular blocky. Maximum combined thickness of the spodic horizon is 16 inches. Reaction ranges from extremely acid to moderately acid.

The BC horizon has hue of 10YR to 5Y, value of 3 to 5, and chroma of 2 to 4. Texture of the fine-earth fraction is loam, very fine sandy loam, fine sandy loam or sandy loam. Reaction ranges from extremely acid to moderately acid.

The C horizon has hue of 10YR to 5Y, value of 3 to 6, and chroma of 2 to 6. Texture of the fine-earth fraction is loam, very fine sandy loam, fine sandy loam or sandy loam. Some pedons have individual layers of loamy coarse sand or coarse sand below a depth of 40 inches. The C horizon is dominantly friable but some pedons have discrete firm masses or strata. Reaction ranges from extremely acid to moderately acid.

Birdsall Series

Soils of the Birdsall series are very deep and very poorly drained. They formed in deposits of silt and very fine sand on depressions of glacial outwash plains and in depressions and drainageways on till plains. Slopes range from 0 to 3 percent.

Birdsall soils are in a drainage sequence with well drained Unadilla soils, moderately well drained Scio soils, and somewhat poorly drained Tonawanda soils. They are near Hudson, Rhinebeck, and Madalin soils which formed in clayey sediments, and Cheektowaga soils which formed in sandy over clayey deposits.

Typical pedon of Birdsall mucky silt loam, 0 to 3 percent slopes, in Fulton County, town of Johnstown, about 200 feet west of NY Route 30A, 800 feet north of the intersection with 5th Avenue Extension; USGS Gloversville topographic quadrangle; NAD83; lat. 43 degrees, 03 minutes, 40.1 seconds N. and long. 74 degrees, 19 minutes, 31.4 seconds W.

A—0 to 7 inches, black (2.5Y 2.5/1) mucky silt loam; weak fine subangular blocky structure parting to weak fine granular; very friable; common very fine and fine and

few medium roots; common coarse and medium prominent light olive brown(2.5Y 5/6) soft masses of iron accumulation; strongly acid; abrupt wavy boundary.

Bg—7 to 15 inches, gray (5Y 5/1) silt loam; weak coarse and medium subangular blocky structure; friable; few very fine roots; few black (2.5Y 2.5/1) krotovina; common medium and fine prominent light olive brown (2.5Y 5/6) soft masses of iron accumulation; strongly acid; clear wavy boundary.

C1—15 to 22 inches, dark grayish brown (2.5Y 4/2) varves of (60 percent) very fine sandy loam and (40 percent) silt loam; weak very thick and thick varves; very friable; many medium and fine prominent yellowish brown (10YR 5/6) soft masses of iron accumulation; contains a firm discontinuous strong brown (7.5YR 5/6) loamy fine sand lens, up to 2 inches thick, along the lower boundary; moderately acid; abrupt smooth boundary.

C2—22 to 48 inches, grayish brown (2.5Y 5/2) varves of silt loam and very fine sandy loam; massive with very thick varves; friable; many medium prominent strong brown (7.5YR 5/6) and few fine prominent strong brown (7.5YR 4/6) soft masses of iron accumulation in the matrix and in some pores; many medium and coarse prominent greenish gray (10Y 5/1) areas of iron depletion; common very fine pores; neutral; gradual smooth boundary.

C3—48 to 60+ inches, olive gray (5Y 5/2) silt loam; massive; friable; 2 percent gravel; contains a thin discontinuous loamy fine sand lens; neutral.

The thickness of the solum and depth to the varved material range from 14 to 30 inches. Content of gravel ranges from 0 to 3 percent. The soil ranges from very strongly acid to moderately acid in the A horizon, and from strongly acid to neutral in the B and C horizons.

The A horizon has hue of 10YR or 2.5Y, value of 1 to 3, and chroma of 1 or 2. It is silt loam or very fine sandy loam, or their mucky analogues. Some pedons have muck or peat surface layers up to 8 inches thick.

The Bg horizon is neutral or has hue of 7.5YR to 5Y, value of 3 to 7, and chroma of 0 to 2, and has redoximorphic features. It is silt loam or very fine sandy loam.

The C horizon is neutral or has hue of 2.5Y to 5GY, value of 4 to 7, and chroma of 0 to 2. It commonly has varves of silt, silt loam or very fine sand in any combination, with a composite texture of silt loam, very fine sandy loam or loamy very fine sand. Layers of sandy and/or gravelly material are in some pedons. They are 1 to 3 inches thick. Some pedons have textures of silty clay loam and/or silty clay below a depth of 40 inches.

Correlation Note: Map unit 157A does not use the g subscript in describing the C horizon which is outside the range of the Birdsall series. This should not significantly affect use and management on a local basis for most purposes.

Broadalbin Series

Soils of the Broadalbin series are very deep, well and moderately well drained, and have a dense subsoil layer. They formed in a loamy eolian mantle and underlying glacial till. They are on side slopes and tops of hills and drumlins in uplands. Slopes range from 2 to 40 percent.

Broadalbin soils are in a drainage sequence with somewhat poorly drained Mosherville soils and poorly drained Sun soils. Broadalbin soils are near Charlton soils which do not have a restrictive layer. Broadalbin soils are near areas of Paxton and Woodbridge soils which have a friable subsoil and a dense substratum. Also, Broadalbin soils are sometimes associated with moderately deep Chatfield and Galway soils and the shallow Hollis and Farmington soils.

Typical pedon of Broadalbin fine sandy loam, 2 to 8 percent slopes, in Fulton County, New York, town of Johnstown, 1.8 miles east of the junction of NY Route 29

and NY Route 30A; 0.3 miles south along a farm road which makes an acute angle with NY Route 29; 250 feet south of the barn; USGS Gloversville, NY, topographic quadrangle; NAD27; lat. 43 degrees, 01 minutes, 02 seconds N. and long. 74 degrees, 20 minutes, 07 seconds W.

Ap—0 to 9 inches; dark brown (10YR 3/3) fine sandy loam; moderate medium granular structure; friable; many very fine, and few fine and medium roots; 1 percent sub-rounded gravel; slightly acid; abrupt smooth boundary.

Bw—9 to 17 inches; brown (10YR 4/3) fine sandy loam; moderate fine and medium subangular blocky structure; friable; common very fine and few fine roots; 4 percent sub-rounded gravel and 1 percent sub-rounded cobble; slightly acid; abrupt wavy boundary.

E—17 to 22 inches; dark grayish brown (10YR 4/2) fine sandy loam; common light brownish gray (10YR 6/2) sand grains with continuous coatings: moderate medium subangular blocky structure; friable; common very fine roots; many very fine vesicular pores; 1 percent sub-rounded gravel; slightly acid; abrupt irregular boundary.

2Bx—22 to 36 inches; very dark grayish brown (10YR 3/2) fine sandy loam; brown (10YR 5/3) prism face with yellowish brown (10YR 5/6) rind; weak very coarse prismatic structure parting to moderate medium angular blocky; very firm, brittle; common soft black shale fragments; few coarse prominent strong brown (7.5YR 5/8) soft masses of iron accumulation in matrix at 30 inches deep; 5 percent sub-rounded gneiss gravel, 1 percent sub-rounded shale fragments; strongly acid; clear wavy boundary.

2C—36 to 54 inches; dark grayish brown (10YR 4/2) loam; massive with weak plate-like divisions; friable; 10 percent sub-rounded gneiss gravel, 1 percent shale fragments; moderately acid; clear wavy boundary.

2Cd—54 to 69 inches; dark grayish brown (10YR 4/2) gravelly fine sandy loam; massive with moderate medium plate-like divisions; very firm; brittle; common soft black shale fragments; 15 percent gravel; slightly alkaline; strongly effervescent; clear wavy boundary.

2C’—69 to 80 inches, dark grayish brown (10YR 4/2) gravelly loam; massive; friable; 15 percent sub-rounded gravel; areas of decomposed black shale; slightly alkaline; strongly effervescent.

The thickness of solum ranges from 34 to 60 inches. The depth to the fragipan is from 18 to 36 inches. Rock fragments range from 1 to 35 percent by volume in the upper solum, 3 to 35 percent in the lower solum, and from 10 to 50 percent in the C horizon. Some pedons have redoximorphic features at 23 or more inches below the mineral surface. The soil is strongly acid to slightly acid in the mineral solum and strongly acid to slightly alkaline in the C horizon.

The Ap horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 or 3. Texture of the fine-earth fraction ranges from fine sandy loam to silt loam.

The Bw horizon has hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 3 to 6. Texture of the fine-earth fraction ranges from fine sandy loam to silt loam. Structure is weak or moderate granular or subangular blocky structure. Consistence is very friable or friable.

The E or 2E horizon, when present, has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 2 or 3. Texture of the fine-earth fraction ranges from sandy loam to silt loam. Structure is weak or moderate platy or subangular blocky, or it is massive. Consistence is friable or firm.

The Bx or 2Bx horizon has hues of 10YR or 2.5Y, values of 3 to 5, and chromas of 2 to 4. It ranges from sandy loam to loam in the fine-earth fraction. It has weak very coarse prismatic structure parting to weak or moderate platy or blocky structure. Consistence is firm and very firm.

The C, Cd, or 2C horizon has hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 to 6. Texture of the fine-earth fraction ranges from sandy loam to loam. In some pedons the material is calcareous. It is massive with or without plate-like divisions. Consistence is friable or very firm.

Burnt Vly Series

Soils of the Burnt Vly series consists of very deep, very poorly drained soils formed in organic material derived mainly from woody plants, 16 to 51 inches thick overlying sandy soil material. These soils are in depressions within outwash plains, moraines, and bedrock controlled uplands. In some places, Burnt Vly soils are near flood plains. Slopes range from 0 to 2 percent.

Burnt Vly soils are closely associated with Pleasant Lake soils which have organic deposits more than 51 inches deep, and Humaquepts which consist of recent alluvial deposits. Other associated soils include sandy Croghan, Naumburg and Searsport soils, and coarse loamy Skerry, Adirondack, Pillsbury and Sabattis soils.

Typical pedon of Burnt Vly mucky peat, in a map unit of Burnt Vly-Humaquepts-Pleasant Lake complex, Fulton County, town of Stratford, 175 feet north-west of a point 785 feet north along a DEC trail, from a trailhead on NY Route 29A, 4,100 feet east of intersection with East Shore Road (Pleasant Lake); USGS 7.5 minute, Canada Lake, NY quadrangle; NAD83; lat. 43 degrees 10 minutes 52.3 seconds N., and long. 74 degrees 34 minutes 38.2 seconds W.

Oi—0 to 1 inch; dark brown (7.5YR 3/3) pressed peat; about 95 percent fibers, 75 percent rubbed; primarily sphagnum moss and forbs fibers; massive; very friable; common medium roots; extremely acid; abrupt smooth boundary.

Oe—1 to 3 inches; very dark grayish brown (10YR 3/2) broken face and rubbed mucky peat; about 75 percent fibers, 40 percent rubbed; primarily sphagnum and forbs fibers; massive; very friable; common very fine and fine, few medium roots; extremely acid; abrupt smooth boundary.

Oa1—3 to 11 inches; black (10YR 2/1) broken face and rubbed muck; about 20 percent fibers, 5 percent rubbed; primarily woody fibers; weak medium granular structure; friable; few medium roots; extremely acid; clear wavy boundary.

Oa2—11 to 26 inches; dark grayish brown (10YR 4/2) broken face, dark brown (7.5YR 3/2) rubbed muck; about 20 percent fibers, 2 percent rubbed; primarily woody fibers; massive; non-sticky; few fine and medium roots; very strongly acid; clear wavy boundary.

Oa3—26 to 30 inches; very dark grayish brown (10YR 3/2) broken face and rubbed muck; about 10 percent fibers, 2 percent rubbed; primarily woody fibers; 3 percent fine sand grains; massive; non—sticky; very strongly acid; abrupt smooth boundary.

2Cg—30 to 60 inches; dark gray (2.5Y 4/1) loamy sand; massive; nonsticky; few medium faint gray (2.5Y 6/1) areas of iron depletion, few fine prominent yellowish brown (10YR 5/6) masses of iron accumulation; very strongly acid.

The depth to the mineral horizon ranges from 16 to 51 inches. In some pedons, the mineral layer is a single layer 12 inches or more thick with organic material above and below. The organic part of the control section has a pH of less than 4.5 in 0.01M calcium chloride.

The surface tier has hue of 2.5Y to 10YR, or is neutral, value of 2 to 7, and chroma of 0 to 6. Values normally increase several units when pressed. Fiber content ranges from 75 to 95 percent before rubbing and 30 to 90 after rubbing. In some pedons the surface tier is entirely mucky peat or muck.

The subsurface tier has hue of 10YR to 5YR, or is neutral, value of 2 to 6, and chroma of 0 to 3. The materials are dominantly muck (sapric material), but layers of

peat (fibric material) totaling less than 5 inches in thickness and mucky peat (hemic material) totaling less than 10 inches are in some pedons. This horizon typically is massive with some pedons having a weak platy, blocky, or granular structure.

The 2C horizon has hue of 2.5YR to 5Y, value of 3 to 6, and chroma of 0 to 6. Texture is sand, loamy sand, fine sand, very fine sand, loamy fine sand, gravelly loamy sand, gravelly sand, or very gravelly sand. Reaction ranges from extremely acid to slightly acid. Some pedons have thin strata of very fine and/or fine sandy loam.

Correlation Note: The Burnt Vly series is established by this correlation.

Catden Series

Soils of the Catden series are very deep and very poorly drained. They formed in well decomposed organic material derived from woody and herbaceous plants. Catden soils are in depressional areas or basins on lake plains and outwash plains. Slopes range up to 2 percent.

Catden soils are near Timakwa soils which formed in organic material 16 to 51 inches thick, clayey Madalin soils, sandy Scarboro soils, silty Birdsall soils and loamy Sun soils.

Typical pedon of Catden muck, 0 to 2 percent slopes, Fulton County, town of Northampton, in Tamarack Swamp, 1,000 feet west-northwest of NY Route 30, 0.9 miles north of the intersection with the south end of Bunker Hill Road; USGS Northville 7.5 minute topographic quadrangle; NAD83; lat. 43 degrees, 11 minutes, 43 seconds N. and long. 74 degrees, 12 minutes, 38 seconds W.

Oa—0 to 3 inches, black (5YR 2.5/1) broken face and rubbed muck; 5 percent fibers, 3 percent rubbed; moderate medium subangular blocky structure; very friable; common fine roots; strongly acid; gradual smooth boundary.

Oe—3 to 9 inches, black (5YR 2.5/1) broken face and rubbed mucky peat; 70 percent fibers, 25 percent rubbed; weak fine subangular blocky structure; friable; few fine roots; strongly acid; clear smooth boundary.

Oa1'—9 to 22 inches, black (N 2.5/0) broken face and rubbed muck; 50 percent fiber, 15 percent rubbed; weak fine subangular blocky structure; friable; strongly acid; clear smooth boundary.

Oa2'—22 to 31 inches, black (N 2.5/0) broken face and rubbed muck; 40 percent fiber, 10 percent rubbed; weak medium subangular blocky structure; friable; moderately acid; clear smooth boundary.

Oa3'—31 to 42 inches, black (N 2.5/0) broken face, black (10YR 2/1) rubbed muck; 30 percent fiber, 5 percent rubbed; massive; friable; moderately acid; clear smooth boundary.

Oa4'—42 to 56 inches, black (N 2.5/0) broken face and rubbed muck; 50 percent fiber, 15 percent rubbed; weak fine granular structure; friable; strongly acid; gradual smooth boundary.

Oe1'—56 to 65 inches, black (10YR 2/1) broken face and rubbed mucky peat; 70 percent fiber, 40 percent rubbed; massive; friable; moderately acid; gradual smooth boundary.

Oe2'—65 to 78 inches, black (7.5YR 2.5/1) broken face and very dark gray (7.5YR 3/1) rubbed mucky peat; 50 percent fiber, 30 percent rubbed; massive; friable; moderately acid; gradual smooth boundary.

2C—78 to 88 inches, dark gray (2.5Y 4/1), gray (2.5Y 5/1) and black (2.5Y 2.5/1) loamy sand; massive; firm; few medium distinct light olive brown (2.5Y 5/4) masses of iron accumulation; moderately acid.

The organic material extends to a depth of 51 inches or more. Woody fragments occur throughout the profile. Reaction throughout the profile ranges from very strongly acid to neutral (in 0.01M CaCl).

The surface tier has hue of 5YR to 2.5Y, or is neutral, value of 1 to 4, and chroma of 0 to 6. It is dominantly muck, but may have a surface layer of peat or mucky peat. Structure is weak to moderate, fine to coarse, granular or subangular blocky, or it is massive.

The subsurface tier has hue of 5YR to 2.5Y, or is neutral, value of 2 or 3 and chroma of 0 to 4. It is dominantly muck, derived from woody plant materials. Structure is granular or blocky, or it is massive.

The bottom tier has colors similar to the subsurface tier, and has variable amounts of woody and herbaceous layers, with woody fibers being dominant. It is dominantly muck, but may have thin layers of peat. It is massive or may have weak coarse blocky or thick platy structure.

Some pedons have mineral material below a depth of 51 inches. Texture is loamy sand to silty clay loam.

Charlton Series

Soils of the Charlton series are very deep and well drained. They formed in loamy glacial till on upland till plains and hillsides. Slopes range from 2 to 25 percent.

Charlton soils are associated with moderately well drained Woodbridge soils, somewhat poorly drained Ridgebury soils and poorly drained Sun soils. They are near Paxton, Broadalbin, and Mosherville soils which formed in compact glacial till. They are also near shallow Hollis and Farmington soils and moderately deep Chatfield and Galway soils.

Typical pedon of Charlton loam, 8 to 15 percent slopes, in Saratoga County, town of Moreau, 10 feet east of Selfridge Road, 1,600 feet south of Hatchery Road; USGS Gansevoort topographic quadrangle; NAD27; lat. 43 degrees, 13 minutes, 41 seconds N. and long. 73 degrees, 39 minutes, 25 seconds W.

Ap —0 to 14 inches, dark brown (10YR 3/3) loam, pale brown (10YR 6/3) dry; moderate medium granular structure; friable; many fine and medium roots; 10 percent rock fragments; strongly acid; clear smooth boundary.

Bw1—14 to 27 inches, brown (7.5YR 4/4) gravelly fine sandy loam; weak medium subangular blocky structure; friable; many fine roots and common medium roots; 20 percent rock fragments; moderately acid; clear smooth boundary.

Bw2—27 to 36 inches, dark yellowish brown (10YR 4/4) sandy loam; weak medium subangular blocky structure; friable; few fine and medium roots; 10 percent rock fragments; moderately acid; clear wavy boundary.

C—36 to 72 inches, brown (10YR 4/3) gravelly sandy loam; weak medium plate-like divisions; friable; few thin lenses of loamy sand; 20 percent rock fragments; moderately acid.

The thickness of the solum ranges from 20 to 38 inches. Depth to bedrock is greater than 60 inches. Rock fragments range from 5 to 35 percent to a depth of 40 inches and from 5 to 50 percent below. Reaction throughout the soil is very strongly acid to moderately acid.

The A horizon has value and chroma of 2 or 3. The Ap horizon has hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 2 to 4. Texture is commonly sandy loam or loam in the fine-earth fraction.

The upper part of the B horizon has hue of 7.5YR or 10YR, with value and chroma of 4 to 6. The lower part of the B horizon has hue of 10YR or 2.5Y, with value and chroma of 4 to 6. Texture of the B horizon is sandy loam to loam in the fine-earth fraction. The horizon is massive or has weak subangular blocky or granular structure, and is friable or very friable.

The C horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 2 to 4. Texture is fine sandy loam, sandy loam, or loam in the fine-earth fraction. Pockets or

thin lenses of loamy sand or sand are present in the C horizon of some pedons. The horizon is massive or has plate-like divisions, and is friable through firm.

Chatfield Series

Soils of the Chatfield series are moderately deep, well drained soils that formed in a moderately thick mantle of loamy till. They are on bedrock controlled hills and ridges in the uplands. Slopes range from 8 to 35 percent.

Chatfield soils are near Charlton, Paxton, Woodbridge, and Ridgebury soils which are all very deep to bedrock, and Hollis soils which are less than 20 inches deep to bedrock.

Typical pedon of Chatfield loam, in an area of Chatfield-Hollis complex, 8 to 15 percent slopes, very rocky, Fulton County, town of Johnstown, 125 feet west of the intersection of NY Route 67 and Mud Road, and about 100 feet north of NY Route 67; USGS Peck Lake NY topographic quadrangle; NAD83; lat. 43 degrees, 00 minutes, 19.1 seconds N. and long. 74 degrees, 28 minutes, 17.9 seconds W.

Oe —0 to 1 inch, black (7.5YR 2.5/1) moderately decomposed plant material; weak very fine and fine granular structure; very friable; many very fine and fine roots; extremely acid; abrupt smooth boundary.

Oa —1 to 3 inches, very dark brown (7.5YR 2.5/2) highly decomposed plant material; weak very fine and fine granular structure; very friable; many very fine and fine roots and common medium roots; 2 percent gravel; extremely acid; clear smooth boundary.

BA—3 to 7 inches, brown (7.5YR 4/4 and 7.5YR 4/3) loam; weak medium and coarse subangular blocky structure; very friable; many fine and very fine roots and common medium roots; 5 percent gravel; very strongly acid; clear wavy boundary.

Bw1—7 to 16 inches, strong brown (7.5YR 4/6) loam; weak medium and coarse subangular blocky structure; very friable; common fine, very fine and medium roots; 5 percent gravel, 1 percent cobbles; very strongly acid; gradual wavy boundary.

Bw2—16 to 25 inches, brown (7.5YR 4/4) loam; weak coarse and medium subangular blocky structure; friable; common fine and very fine roots and few medium roots; 5 percent gravel, 1 percent cobbles; very strongly acid; abrupt wavy boundary.

2R—25 inches, massive gray, folded, gneiss bedrock.

The thickness of the solum ranges from 16 to 36 inches. Depth to bedrock ranges from 20 to 40 inches. Rock fragments range from 5 to 35 percent throughout the mineral soil.

The O horizon has hue of 7.5YR to 2.5Y value of 2 to 3 and chroma of 0 to 2. It is slightly to highly decomposed plant material. Structure is granular or subangular blocky, or it is massive. Consistence is very friable. Reaction ranges from extremely acid to moderately acid.

The A horizon, if present, has hue of 7.5YR to 2.5Y, value of 2 to 4 and chroma of 1 to 4. Dry value is 6 or higher. Texture ranges from loam to sandy loam in the fine-earth fraction. Structure is weak or moderate, fine or medium granular. Consistence is friable or very friable. Reaction ranges from very strongly acid to moderately acid.

The AB or BA horizon has hue of 7.5YR to 2.5Y, value of 3 or 4, and chroma of 2 to 4. Texture is similar to the A horizon.

The Bw horizon has hue of 7.5YR to 2.5Y, value of 3 to 6 and chroma of 4 to 6. Texture ranges from silt loam to sandy loam in the fine-earth fraction. Structure is fine to coarse subangular blocky or granular. Consistence is friable or very friable. Reaction ranges from very strongly acid to moderately acid.

Some pedons have a C horizon. It has hue of 7.5YR to 5Y, value of 4 or 5 and chroma of 2 to 4. Texture ranges from silt loam to sandy loam in the fine-earth fraction,

and may have lenses or pockets of loamy sand. It is massive, or may have plate-like divisions. Consistence is friable or firm. Reaction ranges from very strongly acid to moderately acid.

The 2R horizon is dominantly granite or gneiss bedrock. In places it is massive; but dominantly, it has vertical and horizontal fractures in the upper 12 to 30 inches lacking significant displacement below the upper few inches.

Cheektowaga Series

Soils of the Cheektowaga series are very deep and very poorly drained. They formed in sandy deposits over clayey sediments on lake plains. Slopes range from 0 to 3 percent.

Cheektowaga soils are associated with loamy over clayey Elmridge soils and Aeric Epiaquepts. They are near silty Tonawanda and Birdsall soils, and clayey Madalin and Fonda soils.

Typical pedon of Cheektowaga mucky very fine sandy loam, in Saratoga County, town of Ballston, 660 feet southeast of Round Lake Road (Co. Rt. 80), 1,700 feet southwest of the intersection with Lake Shore Road, in a pasture; USGS Round Lake topographic quadrangle; NAD27; lat. 42 degrees, 55 minutes, 15 seconds N. and long. 73 degrees, 51 minutes, 24 seconds W.

Ap—0 to 12 inches, very dark grayish brown (10YR 3/2) mucky very fine sandy loam; brown (10YR 5/3) dry; moderate fine granular structure; friable; many fine roots; neutral; clear smooth boundary.

Eg—12 to 15 inches, light brownish gray (2.5Y 6/2) loamy sand; very weak fine granular structur; few fine roots; common fine prominent yellowish brown (10YR 5/8) soft masse e; very friables of iron accumulation; neutral; abrupt smooth boundary.

Bg—15 to 21 inches, grayish brown (10YR 5/2) loamy fine sand; weak fine subangular blocky structure; very friable; few fine roots; common fine prominent yellowish brown (10YR 5/6) soft masses of iron accumulation; neutral; abrupt smooth boundary.

2C—21 to 38 inches, gray (10YR 5/1) clay; massive; firm; common fine prominent yellowish brown (10YR 5/8) soft masses of iron accumulation; 5 percent rock fragments (less than 3 inches in size along a 1-inch varve at 38 inches); neutral; abrupt smooth boundary.

3C—38 to 72 inches, yellowish brown (10YR 5/4) silty clay; massive; firm; many fine prominent olive gray (5Y 5/2) areas of iron depletion; neutral.

The thickness of the solum and depth to the underlying fine textured material ranges from 20 to 40 inches. Depth to bedrock is greater than 60 inches. The soil contains few or no rock fragments. Reaction ranges from moderately acid to neutral in the upper part of the solum, but ranges to moderately alkaline just above the clayey material. Reaction of the substratum is neutral to moderately alkaline.

The A horizon has hue of 10YR or 2.5Y, value of 2 to 3, and chroma of 1 or 2. The texture is loamy sand through very fine sandy loam, commonly with mucky analogs. Structure is weak or moderate, very fine or fine granular.

The Eg horizon is neutral or has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 or 2, and it has redox features. The texture is loamy fine sand through sand.

The Bg horizon has hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 1 to 3. Texture is loamy fine sand to sand. The horizon has weak, fine or medium subangular blocky or weak, medium through thick platy structure. It is friable or very friable.

The 2C and 3C horizons have hue of 5YR to 2.5Y, value of 4 or 5, and chroma of 1 to 4, and have high and low chroma redoximorphic features. Texture is silty clay loam to clay. The horizon is massive with or without plate-like depositional varves.

Churchville Series

Soils of the Churchville series are very deep and somewhat poorly drained. They formed in clayey lacustrine sediments overlying loamy glacial till. They are on till plains in the Mohawk Valley. Slopes range from 0 to 8 percent (fig. 23).

Churchville soils are near Mohawk, Manheim, Lansing, Appleton, and Ilion soils which are till soils lacking clayey mantles. They are also near Hudson, Rhinebeck and Madalin soils which formed in deep, clayey lacustrine sediments.

Typical pedon of Churchville silty clay loam, 0 to 3 percent slopes, in a hayfield, in Fulton County, in the town of Oppenheim, 50 feet south of County Route 108, 1,550 feet east of the intersection with County Route 151; USGS Oppenheim, NY topographic quadrangle, NAD83; lat. 43 degrees, 03 minutes, 21.9 seconds N. and long. 74 degrees, 44 minutes, 04.5 seconds W.

Ap —0 to 7 inches; dark brown (10YR 3/3) silty clay loam; pale brown (10YR 6/3) dry; weak medium subangular blocky structure parting to moderate fine and medium granular; friable; many very fine, common fine roots; 1 percent rock fragments; neutral; abrupt smooth boundary.

BE—7 to 11 inches; brown (10YR 5/3) silty clay loam; moderate fine angular blocky structure; firm; grayish brown (10YR 5/2) ped faces; many very fine roots; 1 percent rock fragments; common fine distinct yellowish brown (10YR 5/6) soft masses of iron accumulation in the matrix; neutral; clear wavy boundary.

Bt1—11 to 20 inches; grayish brown (10YR 5/2) silt clay loam; moderate fine and medium angular blocky structure; firm; gray (10YR 5/1) ped faces; few discontinuous faint gray (10YR6/1) clay films on ped faces and on surfaces along pores; common very fine roots; 1 percent rock fragments; common fine and medium prominent yellowish brown (10YR 5/6) soft masses of iron accumulation in the matrix; neutral; clear wavy boundary.

Bt2—20 to 25 inches; grayish brown (10YR 5/2) silty clay loam; moderate fine and medium angular blocky structure; firm; gray (10YR 5/1) ped faces; few discontinuous faint gray (10YR 6/1) clay films on ped faces and on surfaces along pores; common very fine roots; 1 percent rock fragments; many fine and medium prominent yellowish brown (10YR 5/6) soft masses of iron accumulation in the matrix; slightly alkaline; very slightly effervescent; abrupt smooth boundary.

2C1—25 to 41 inches; brown (10YR 5/3) gravelly loam; massive with weak very thick and thick plate-like divisions; firm; 15 percent calcareous shale rock fragments, 5 percent limestone rock fragments; common coarse distinct gray (2.5Y 5/1) iron depletions and common coarse and medium prominent light olive brown (2.5Y 5/6) soft masses of iron accumulation in the matrix; slightly alkaline, strongly effervescent; gradual wavy boundary.

2C2—41 to 80 inches; brown (10YR 5/3) gravelly loam; massive; very firm and brittle; 15 percent gravel, 5 percent cobbles; moderately alkaline, violently effervescent.

The thickness of the solum and depth to the 2C horizon ranges from 20 to 40 inches and depth to carbonates ranges from 20 to 50 inches. Depth to bedrock is greater than 60 inches. Rock fragments range from 0 to 10 percent in the solum, and 10 to 35 percent in the 2C horizon.

The Ap horizon has hue of 5YR to 2.5Y, value of 3 to 5, and chroma of 2 or 3. Texture is fine sandy loam to silty clay loam in the fine-earth fraction. Reaction ranges from moderately acid to neutral.

The E horizon, where present, has hue of 2.5YR to 2.5Y, value of 4 to 6 and chroma of 2 to 4, with common or many redoximorphic features. Texture is fine sandy loam to silty clay loam in the fine-earth fraction. Structure is weak or moderate blocky or platy. Reaction ranges from moderately acid to slightly alkaline.

Figure 23.—Churchville series occur in areas where moderately deep, clayey deposits overlie loamy till. The interface between the two differing textures can cause seepage and a seasonal high water table at the base of a slope like in this picture. Subsurface drainage tile is being installed to control wetness, and stripcropping in the background helps control erosion on associated Lansing soils.

Photo taken by Harold Wheeler, Conservation Education Coordinator, Fulton County Soil and Water Conservation District.

The BE horizon has color and texture similar to the underlying B horizon with ped faces of lower chroma, indicating minimal development of E horizon characteristics.

The Bt horizon has hue of 2.5YR to 2.5Y, value of 3 to 5, and

chroma of 2 to 4. Iron depletions and concentrations are common to many. Ped coatings have chroma of 2 or less. Texture is clay loam, silty clay loam, silty clay or clay in the fine-earth fraction. Clay films range from patchy to continuous on both horizontal and vertical ped faces. Reaction ranges from slightly acid to slightly alkaline.

Some pedons have a BC horizon.

The 2C horizon has hue of 2.5YR to 2.5Y, value of 3 to 5, and chroma of 1 to 4. Texture is fine sandy loam, very fine sandy loam, loam, silt loam or silty clay loam in the fine-earth fraction. It is massive with or without plate-like divisions. It is firm or very firm. Reaction is slightly alkaline or moderately alkaline. Some pedons have a friable C horizon up to 20 inches thick above the 2C.

Colton Series

The Colton series consists of very deep, excessively drained soils on glacial outwash plains, terraces, eskers and kames. These soils formed in glacial fluvial deposits. Slopes range from 0 to 35 percent.

The Colton soils are closely associated with the sandy Adams soils, the coarse loamy over sandy Monadnock soils, and the very poorly drained Wonsqueak and poorly drained Rumney soils along alluvial systems. They are sometimes near the Potsdam and Becket soils which have a dense substratum. Colton soils are commonly

near bedrock controlled landscapes consisting of shallow Lyman soils and moderately deep Tunbridge soils. Also nearby are sandy Naumburg soils which are somewhat poorly drained or poorly drained.

Typical pedon of Colton sandy loam, in a unit of Monadnock-Adams-Colton complex, 3 to 15 percent slopes, bouldery, in Fulton County, town of Stratford, 50 feet south of Powerhouse Road, 0.8 mile west of County Route 119; USGS Stratford topographic quadrangle; WGS84; lat. 43 degrees 07 minutes 57 seconds N. and long. 74 degrees 38 minutes 55 seconds W.

Oe—0 to 1 inch; black (5YR 2.5/1) moderately decomposed plant material; moderate fine granular structure; very friable; many fine roots and common medium roots; extremely acid; abrupt smooth boundary.

A—1 to 3 inches; black (5YR 2.5/1) sandy loam; weak fine granular structure; very friable; many fine roots and common medium roots; 5 percent gravel; extremely acid; abrupt smooth boundary.

E—3 to 4 inches; brown (7.5YR 5/2) loamy sand; weak fine granular structure; very friable; common medium roots; 5 percent gravel; very strongly acid; abrupt smooth boundary.

Bhs1—4 to 5 inches; dark reddish brown (5YR 2.5/2) gravelly loamy sand; weak fine subangular blocky structure; very friable; few medium and coarse roots; 15 percent gravel, 2 percent cobbles; very strongly acid; abrupt wavy boundary.

Bhs2—5 to 13 inches; dark reddish brown (5YR 3/2) gravelly loamy sand; weak fine subangular blocky structure; very friable; few medium and coarse roots; 15 percent gravel; strongly acid; clear smooth boundary.

Bs—13 to 21 inches; brown (7.5YR 4/4) very gravelly loamy sand; weak fine and medium subangular blocky structure; loose; few coarse roots; 30 percent gravel, 5 percent cobbles; strongly acid; clear wavy boundary.

BC—21 to 32 inches; dark yellowish brown (10YR 3/4) very gravelly loamy sand; single grain; loose; few coarse roots; 30 percent gravel, 5 percent cobbles; strongly acid; clear wavy boundary.

C—32 to 80 inches; brown (10YR 4/3) very gravelly coarse sand; single grain, coarsely stratified; loose; 30 percent gravel, 15 percent cobbles; strongly acid.

The thickness of the solum ranges from 18 to 45 inches. Depth to bedrock is greater than 60 inches. Rock fragments, mainly gravel and cobbles, range from 5 to 55 percent in the surface and subsurface layers, from 15 to 55 percent in the subsoil, and from 35 to 70 percent in the C horizon.

The O horizon has hue of 5YR to 10YR or is neutral, value of 2 to 4, and chroma of 0 to 4. It is up to 8 inches thick.

The Ap horizon, when present, has hue of 10YR to 5YR, value of 2 to 5, and chroma of 2 to 4. Texture is sand, loamy coarse sand, loamy sand, loamy fine sand, sandy loam or fine sandy loam in the fine-earth fraction. It has granular structure or it is structureless. Reaction is extremely acid to moderately acid unless the soil is limed.

The A horizon has hue of 10YR to 5YR, value of 2 to 5, and chroma of 0 to 3. Texture is sand, loamy coarse sand, loamy sand, loamy fine sand, sandy loam or fine sandy loam in the fine-earth fraction. Reaction is extremely acid to moderately acid.

The E horizon has hue of 5YR to 10YR, value of 4 to 7, and chroma of 1 or 2. Texture is coarse sand, sand, loamy coarse sand, loamy sand, loamy fine sand or coarse sandy loam in the fine-earth fraction. Some pedons have thin horizons of fine sandy loam. Reaction is extremely acid to moderately acid.

The Bhs or Bh horizon has hue of 2.5YR to 10YR, value of 2 to 3, and chroma of 1 to 3. Texture is coarse sand, sand, loamy coarse sand, loamy sand or loamy fine sand in the fine-earth fraction. Some pedons have thin horizons of fine sandy loam. It has granular or subangular blocky structure, or it is massive. It is very friable or friable, with or without cemented masses. Reaction is extremely acid to moderately acid.

The Bs horizon has hue of 2.5YR to 10YR, value of 3 to 6, and chroma of 3 to 8. Texture is coarse sand, sand, loamy coarse sand, loamy sand or loamy fine sand in the fine-earth fraction. Some pedons are coarse sandy loam in the upper part. Some pedons have thin horizons of fine sandy loam. It has granular or subangular blocky structure, or it is massive or single grain. Reaction is extremely acid to moderately acid.

The BC horizon has hue of 5YR to 2.5Y, value of 3 to 6, and chroma of 2 to 6. Texture is coarse sand, sand, loamy coarse sand, loamy sand or loamy fine sand in the fine-earth fraction. Reaction is extremely acid to moderately acid. Some pedons have a CB horizon with properties similar to the BC.

The C horizon has hue of 7.5YR to 5Y, value of 3 to 7, and chroma of 2 to 6. It is composed of gravel, cobbles or stones with coarse sand, loamy coarse sand, loamy sand or sand in the interstices and has varying degrees of stratification. Reaction is very strongly acid to slightly acid.

Crary Series

The Crary series consists of very deep, moderately well drained soils on upland till plains. These soils formed in an eolian mantle consisting mainly of silt and very fine sand overlying loamy dense till. Slopes range from 0 to 15 percent.

Crary soils are in a drainage sequence with well drained Potsdam soils and somewhat poorly drained Adirondack soils. Other associated soils include Tunbridge, Monadnock, Sabattis, and Tughill soils. Tunbridge soils have bedrock at 20 to 40 inches. Well drained Monadnock soils lack a dense till substratum. Sabattis and Tughill soils are in depressions and are very poorly drained.

Typical pedon of Crary loam, in a map unit of Crary-Potsdam complex, 3 to 15 percent slopes, very bouldery, in Hamilton County, town of Morehouse, on the east side of a woods trail, about 200 feet south of Heurter Road, 300 feet east of the Haskell camp; USGS Ohio 15 minute topographic quadrangle; NAD27; lat. 43 degrees 22 minutes 48 seconds N. and long. 74 degrees 47 minutes 16 seconds W.

A—0 to 4 inches; dark reddish brown (5YR 2.5/2) loam; weak medium granular structure; very friable; many fine, medium and coarse roots; 1 percent rock fragments; very strongly acid; abrupt smooth boundary.

Bh—4 to 8 inches; dark brown (7.5YR 3/2) loam; weak medium and coarse angular blocky structure; friable; many fine and medium roots; 1 percent rock fragments; very strongly acid; gradual smooth boundary.

Bs1—8 to 16 inches; brown (7.5YR 4/4) loam; moderate medium subangular blocky structure; friable; few fine roots; 5 percent rock fragments; very strongly acid; gradual wavy boundary.

Bs2—16 to 21 inches; brown (10YR 4/3) loam; moderate medium subangular blocky structure; friable; few fine roots; 10 percent rock fragments; few fine prominent gray (5YR 5/1) areas of iron depletion, and few fine prominent dark reddish brown (2.5YR 3/4) root stains; very strongly acid; gradual wavy boundary.

2BC—21 to 25 inches; brown (7.5YR 4/4) sandy loam; weak medium platy structure; firm; few fine roots; 10 percent rock fragments; common fine prominent strong brown (7.5YR 5/8) soft masses of iron accumulation, and common fine distinct dark grayish brown (10YR 4/2) areas of iron depletion; strongly acid; clear wavy boundary.

2Cd—25 to 72 inches; dark grayish brown (10YR 4/2) sandy loam, weak medium plate-like divisions grading to just massive in the lower part; firm; 10 percent rock fragments; strongly acid.

The thickness of solum ranges from 16 to 37 inches. The thickness of the eolian deposits ranges from 16 to 40 inches. Depth to bedrock is more than 60 inches. Rock

fragments, including gravel, cobbles and stones, range from 0 to 15 percent by volume in the eolian material, and from 10 to 35 percent in the underlying dense glacial till.

The Ap horizon, where present, has hue of 5YR to 10YR, value of 2 to 5 and chroma of 2 to 4. Texture is silt loam, loam, very fine sandy loam or fine sandy loam in the fine-earth fraction. Reaction ranges from very strongly acid to moderately acid.

In uncleared areas, some pedons have an O horizon up to 4 inches or an A horizon up to 5 inches thick. Also in unplowed areas, E horizons up to 5 inches thick are common.

The E horizon, where present, has hue of 5YR to 10YR, value of 4 to 7, and chroma of 2 or 3. Texture is silt loam, loam, or very fine sandy loam in the fine-earth fraction. Reaction ranges from very strongly acid to moderately acid.

The Bh horizon has hue of 5YR to 10YR, value of 2 to 3, and chroma of 1 or 2. Texture is silt loam, very fine sandy loam, or loam in the fine-earth fraction. Reaction ranges from very strongly acid to moderately acid.

The Bs horizon has hue of 5YR to 10YR, value of 4 to 6, and chroma of 3 to 6. Texture is silt loam, very fine sandy loam, or loam in the fine-earth fraction.

Some pedons have a Bhs horizon above the Bs horizon. The Bhs has hue of 5YR to 10YR, value and chroma of 3. Texture is silt loam, loam, or fine sandy loam in the fine-earth fraction. Reaction of the Bhs and Bs ranges from very strongly acid to moderately acid.

Some pedons have a BC or 2BC horizon with hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 to 8. Texture is loam, fine sandy loam, or sandy loam in the fine-earth fraction. Reaction ranges from very strongly acid to moderately acid. A thin 2E horizon just above the Cd horizon is present in some pedons.

The 2Cd horizon has hue of 5YR to 2.5Y, value of 4 to 7, and chroma of 2 to 4. Texture of the fine earth fraction is fine sandy loam, loam, or sandy loam. Lenses of loamy sand or loamy fine sand occur in some pedons. Reaction ranges from strongly acid to slightly alkaline. Some pedons have a thin C horizon just above the 2Cd horizon.

Croghan Series

The Croghan series consists of very deep, moderately well drained soils formed in sandy deltaic or glaciofluvial deposits. These soils are on sand plains and terraces. Slopes range from 0 to 5 percent.

Croghan soils are in a drainage sequence with the somewhat excessively drained Adams soils, the somewhat poorly drained and poorly drained Naumburg soils, and the very poorly drained Searsport soils. They are closely associated with the Colton, Allagash, and Wonsqueak soils. Croghan soils are not as gravelly as the Colton soils nor do they have the loamy upper subsoil of the Allagash soils. Croghan soils lack the thick organic layer of Wonsqueak soils.

Typical pedon of Croghan fine sandy loam, 0 to 5 percent slopes, in Fulton County, town of Johnstown, 1,000 feet west of a logging access road, at a point 3,450 feet southwest of the gate at Old State Road, and one mile west of County Road 116; USGS Peck Lake 7.5 minute topographic quadrangle; NAD83; lat. 43 degrees 01 minutes 54.87 seconds N. and long. 74 degrees 29 minutes 01.44 seconds W.

Oe —0 to 2 inches; very dark brown (7.5YR 2.5/2) moderately decomposed plant material; weak fine granular structure; loose; extremely acid; abrupt smooth boundary.

A/E—2 to 3 inches; black (10YR 2/1) fine sandy loam and gray (10YR 6/1) loamy fine sand; moderate fine granular structure; very friable; extremely acid; clear smooth boundary.

Bhs—3 to 5 inches; very dark brown (7.5YR 2.5/3) loamy fine sand; weak fine subangular blocky structure; friable; very strongly acid; abrupt smooth boundary.

Bs1—5 to 11 inches; strong brown (7.5YR 4/6) loamy fine sand; weak fine and medium subangular blocky structure; friable; strongly acid; clear smooth boundary.
Bs2—11 to 30 inches; yellowish brown (10YR 5/6) loamy sand; massive; friable; few small pebbles; scattered areas of light gray (2.5Y 7/1) and white (2.5Y 8/1) stripped sand; common fine prominent yellowish red (5YR 5/8) soft masses of iron accumulation; strongly acid; clear smooth boundary.
C1—30 to 36 inches; dark yellowish brown (10YR 4/6) loamy sand; massive; friable; very strongly acid; clear smooth boundary.
C2—36 to 60 inches; dark grayish brown (10YR 4/2) blended sand; massive; friable; strongly acid.

The thickness of the solum ranges from 20 to 50 inches. Depth to bedrock is more than 60 inches. Redoximorphic features occur within 30 inches of the surface. Rock fragments range from 0 to 5 percent in the surface and subsurface, and from 0 to 15 percent in the subsoil and substratum.

The 0 horizon has hue of 5YR to 10YR or is neutral, with value of 2 to 3, and chroma of 0 to 3. The organic layer ranges from slightly to highly decomposed material. Reaction ranges from extremely acid to moderately acid.

The A horizon has hue of 5YR to 10YR, value of 2 to 4, and chroma of 1 or 2. Texture is fine sandy loam, loamy fine sand, loamy sand, fine sand or sand. Reaction ranges from extremely acid to moderately acid. Some pedons have an A/E horizon.

The E horizon has hue of 5YR to 10YR, value of 5 to 7, and chroma of 1 or 2. Texture is fine sandy loam, loamy fine sand, loamy sand, fine sand or sand. Reaction ranges from extremely acid to moderately acid.

The Bhs horizon has hue of 2.5YR to 7.5YR, with value and chroma of 3 or less. Texture is fine sandy loam, loamy fine sand, loamy sand, fine sand or sand. Reaction ranges from very strongly acid to moderately acid.

The Bs horizon has hue of 5YR to 10YR, value of 4 or 5, and chroma of 3 to 6. Texture is fine sandy loam, loamy fine sand, loamy sand, fine sand or sand. Reaction ranges from very strongly acid to moderately acid.

The BC horizon, where present, has hue of 7.5YR to 2.5Y, value of 4 to 8, and chroma of 2 to 6. Texture is loamy fine sand, loamy sand, fine sand or sand. Reaction ranges from very strongly acid to moderately acid.

The C horizon has hue of 7.5YR to 5Y, value of 3 to 7, and chroma of 1 to 6. Texture is loamy fine sand to coarse sand. Reaction ranges from very strongly acid to moderately acid.

Darien Series

Soils of the Darien series are very deep and somewhat poorly drained. They formed in loamy glacial till derived mainly from shale and siltstone. They are on till plains, moraines and drumlins in the Mohawk Valley. Slopes range from 0 to 8 percent.

Darien soils are in a drainage sequence with moderately well drained Georgia soils and poorly drained Ilion soils. Darien soils are near Mohawk and Manheim soils which have a darker subsoil and substratum due to black shale, and Lansing and Appleton soils which generally have less clay in the subsoil.

Typical pedon of Darien silt loam, 3 to 8 percent slopes, in a hayfield, in Fulton County, town of Perth, 620 feet west of Sacandaga Road at the intersection with Opalka Road; USGS Tribes Hill, NY topographic quadrangle; NAD83; lat. 42 degrees, 59 minutes, 28.57 seconds N. and long. 74 degrees, 16 minutes, 45.07 seconds W.

Ap —0 to 11 inches; dark grayish brown (10YR 4/2) silt loam; light brownish gray (10YR 6/2) dry; moderate fine and medium granular; friable; many fine and very fine roots and few medium roots; 5 percent rock fragments; neutral; abrupt smooth boundary.

BE —11 to 14 inches; olive brown (2.5Y 4/3) silt loam; weak fine and medium subangular blocky structure; friable; few very fine and medium roots; 5 percent rock fragments; many medium distinct dark gray (2.5Y 4/1) iron depletions and many medium prominent yellowish brown (10YR 5/6) soft masses of iron accumulation in the matrix; neutral; clear wavy boundary.

Bt—14 to 23 inches; brown (10YR 4/3) silty clay loam; moderate medium subangular blocky structure; friable; many discontinuous faint dark gray (2.5Y 4/1) and dark grayish brown (2.5Y 4/2) clay films on ped faces; few fine and very fine roots; 5 percent rock fragments; common medium distinct yellowish brown (10YR 5/6) soft masses of iron accumulation in the matrix; neutral; clear wavy boundary.

BC—23 to 32 inches; olive brown (2.5Y 4/3) silt loam; weak medium subangular blocky structure; friable; few fine and very fine roots; 10 percent rock fragments; common bands of gray and light gray (2.5Y 6/1, 7/1) calcium carbonate 2 to 3 cm. thick; common medium distinct light olive brown (2.5Y 5/6) masses of iron accumulation in the matrix and along root channels; moderately alkaline, strongly effervescent in carbonate bands; clear wavy boundary.

C—32 to 60 inches; olive brown (2.5Y 4/3) loam; massive with weak medium and thick plate-like divisions in the upper part; firm; 10 percent gravel and 1 percent cobble; common medium distinct gray (2.5Y 5/1) iron depletions, and common medium prominent yellowish brown (10YR 5/6) soft masses of iron accumulation in the matrix; moderately alkaline, strongly effervescent.

The thickness of the solum ranges from 30 to 50 inches and depth to carbonates ranges from 25 to 48 inches. Depth to bedrock is greater than 60 inches. Rock fragments, mainly channers of shale, range from 2 to 35 percent in the solum, and 10 to 60 percent in the substratum.

The Ap horizon has hue of 10YR or 2.5Y, value of 2 to 4, and chroma of 1 to 4. Texture is loam, silt loam, or silty clay loam in the fine-earth fraction. Structure is weak or moderate granular or weak subangular blocky. Consistence is very friable or friable. Reaction ranges from strongly acid to neutral.

The BE horizon has hue of 10YR to 5Y, value of 3 to 5, and chroma of 2 to 6. Texture is loam, silt loam, clay loam or silty clay loam in the fine-earth fraction. Structure is subangular blocky, prismatic or platy. Consistence is friable or firm. Reaction ranges from strongly acid to neutral.

The Bt horizon has hue of 10YR to 5Y, value of 3 to 5, and chroma of 2 to 6. Texture is clay loam or silty clay loam in the fine-earth fraction. Structure is subangular blocky, angular blocky or prismatic parting to blocky. Consistence is friable, firm or very firm. Reaction ranges from very strongly acid to neutral.

The BC horizon has hue of 10YR to 5Y, value of 3 to 5 and chroma of 2 to 6. Texture is clay loam, silty clay loam, or silt loam in the fine-earth fraction. Primary structure of subangular blocky, angular blocky, platy or prismatic is inherited from the parent material. Carbonates are present in most pedons. Reaction ranges from neutral to moderately alkaline.

The C horizon has hue of 10YR to 5Y, value of 3 to 5 and chroma of 1 to 4. Texture is loam, silt loam, silty clay loam, or clay loam in the fine-earth fraction. It is firm or very firm. Reaction is slightly alkaline or moderately alkaline.

Deerfield Series

Soils of the Deerfield series are very deep and moderately well drained. They formed in water sorted sand on glacial outwash plains, deltas, and terraces. Slopes range from 3 to 8 percent.

Deerfield soils are in a drainage sequence with excessively drained Windsor soils and very poorly drained Scarboro soils. They are near gravelly Hinckley soils, silty Scio soils, and the sandy over clayey Cheektowaga soils.

Typical pedon of Deerfield loamy fine sand, undulating, in Saratoga County, Town of Saratoga Springs, 1,400 feet north of the intersection of Ruggles Road and NY Route 29, 1,600 feet west of Ruggles Road, in Knoll Springs subdivision; USGS Quaker Springs topographic quadrangle; NAD27; lat. 43 degrees, 05 minutes, 33 seconds N. and long. 73 degrees, 43 minutes, 25 seconds W.

Ap—0 to 10 inches, very dark grayish brown (10YR 3/2) loamy fine sand, light brownish gray (10YR 6/2) dry; weak fine granular structure; friable; common fine roots; strongly acid; abrupt smooth boundary.

Bw1—10 to 14 inches, dark yellowish brown (10YR 4/4) loamy fine sand; weak fine granular structure; friable; few fine and medium roots; many coarse prominent yellowish red (5YR 5/8) soft masses of iron accumulation; strongly acid; abrupt irregular boundary.

Bw2—14 to 26 inches, dark yellowish brown (10YR 4/4) loamy fine sand; single grain; friable; few fine and medium roots; common fine distinct strong brown (7.5YR 5/6) and prominent strong brown (7.5YR 5/8) soft masses of iron accumulation; strongly acid; gradual smooth boundary.

C1—26 to 44 inches, yellowish brown (10YR 5/4) fine sand; single grain; friable; few fine and medium roots; few fine prominent brownish yellow (10YR 6/8) soft masses of iron accumulation and distinct grayish brown (10YR 5/2) areas of iron depletion; strongly acid; gradual wavy boundary.

C2—44 to 72 inches, brown (10YR 5/3) fine sand; single grain; friable; strongly acid.

The thickness of the solum ranges from 15 to 35 inches. Depth to bedrock is greater than 60 inches. The reaction is very strongly acid to slightly acid throughout the soil.

The Ap horizon has hue of 10YR, value of 2 to 4, and chroma of 1 to 3. Texture is fine sandy loam through sand.

The B horizon has hue of 7.5YR to 2.5Y, value of 3 to 6 and chroma of 2 to 6. Texture is fine sandy loam to sand to a depth of 10 inches, and loamy fine sand to coarse sand below. Structure is very fine to medium granular, or the horizon is single grain. The soil has mottles with chroma of 2 or less between depths of 15 and 40 inches from the surface.

The C horizon has hue of 7.5YR to 5Y, value of 4 to 6, and chroma of 1 to 4. Texture is coarse sand to fine sand.

Correlation Note: The Deerfield series was added for the join with Saratoga County. The range in characteristics in the taxonomic unit description was within range of the Deerfield official soil series description at the time of the Saratoga County correlation. The range in characteristics of the color of the B horizon is slightly beyond what is now permitted. This should not affect use and management on a local basis for most purposes.

Elmridge Series

Soils of the Elmridge series are very deep and moderately well drained. They formed in a loamy mantle over clayey lacustrine sediments on lake plains. Slopes range from 0 to 8 percent.

Elmridge soils are in a drainage sequence with somewhat poorly drained Aeric Epiaquepts soils. They are near very poorly drained sandy over clayey Cheektowaga soils. They are associated with Unadilla, Scio, and Tonawanda soils which have less clay in the substratum. Elmridge soils are also near Hudson, Rhinebeck, and Madalin soils which lack a thick loamy mantle.

Typical pedon of Elmridge fine sandy loam, 3 to 8 percent slopes, in Fulton County, town of Johnstown, 250 feet north of NY Route 67, at a point 0.7 mile west of Oaksford Rd; USGS Peck Lake topographic quadrangle; WGS84; lat. 43 degrees, 00 minutes, 28.5 seconds N. and long. 74 degrees, 26 minutes, 18.0 seconds W.

Ap – 0 to 11 inches, dark brown (10YR 3/3) light grayish brown (10YR 6/2) dry; fine sandy loam; weak medium subangular blocky structure parting to weak medium granular; friable; many very fine roots; 1 percent gravel; neutral; abrupt smooth boundary.

Bw1—11 to 20 inches, dark yellowish brown (10YR 4/4) fine sandy loam; weak coarse and medium subangular blocky structure; friable; common very fine roots; 1 percent gravel; neutral; clear smooth boundary.

Bw2—20 to 25 inches, dark yellowish brown (10YR 4/4) sandy loam; weak coarse and medium subangular blocky structure; friable; common very fine roots; common medium distinct dark yellowish brown (10YR 4/6) soft masses of iron accumulation; common medium faint brown (10YR 5/3) and few medium distinct grayish brown (10YR 5/2) iron depletions; neutral; abrupt smooth boundary.

2C1—25 to 34 inches, grayish brown (10YR 5/2) silty clay; massive; firm; many medium and coarse prominent yellowish brown (10YR 5/6) soft masses of iron accumulation; many coarse and medium faint gray (2.5Y 5/1) iron depletions; common very fine vesicular pores; slightly alkaline; clear smooth boundary.

2C2—34 to 60 inches, gray (2.5Y 5/1) silty clay and silty clay loam; massive with few thick varves and few thick discontinuous, dark grayish brown (2.5Y 4/2) and brown (10YR 5/3) lenses of very fine sandy loam and fine sandy loam; many medium and coarse prominent dark yellowish brown (10YR 4/6) soft masses of iron accumulation; common fine faint gray (N 5/0) iron depletions in pores; common very fine vesicular pores; firm; slightly alkaline; very slightly effervescent below 40 inches.

The thickness of the solum and depth to the underlying clayey material range from 18 to 40 inches. Rock fragments, mostly fine gravel, range from 0 to 5 percent by volume in the upper loamy horizons and from 0 to 2 percent in the underlying clayey horizons. Reaction ranges from very strongly acid to neutral in the A horizon, from strongly acid to neutral in the B horizon with at least one subhorizon being moderately acid, slightly acid, or neutral, and from moderately acid to slightly alkaline in the 2C horizon. Depth to carbonates is greater than 40 inches.

The Ap horizon has hue of 7.5YR or 10YR, value of 2 to 4, and chroma of 1 to 3. Dry value is 6 or more. Undisturbed pedons have a thin A horizon with value of 2 or 3 and chroma of 1 to 3. The Ap or A horizon is sandy loam, fine sandy loam, very fine sandy loam, or loam. Structure commonly is weak or moderate granular, but includes weak subangular blocky, parting to granular in some pedons and is friable or very friable. The upper part of the B horizon has hue of 7.5YR to 2.5Y, value of 3 to 5, and chroma of 3 to 6. The lower part of the B horizon has hue of 7.5YR to 5Y, value of 3 to 6, and chroma of 2 to 6. Subhorizons with matrix chroma of 2 are below a depth of 20 inches. The B horizon has iron depletions above a depth of 24 inches. Texture of the noncontrasting Bw horizon is sandy loam, fine sandy loam, or loam, but some pedons have thin strata or lenses of loamy sand, loamy fine sand, or loamy very fine sand. The loamy Bw horizon has weak or moderate granular or subangular blocky structure, or it is massive. Consistence is friable or very friable. Some pedons have a silty clay loam or silty clay 2Bw or 2BC horizon just above the 2C horizon. These contrasting horizons have weak or moderate blocky, platy, or prismatic structure. Consistence is friable or firm. The 2C horizon commonly has hue of 7.5YR to 5Y, value of 4 to 6, and chroma of 2 to 4. In some pedons the chroma is 1. It typically has redoximorphic features. Texture is silty clay loam, silty clay or clay. Some pedons have thin lenses or thin coatings of silt, very fine sand or fine sand on ped surfaces. In some pedons below 40 inches,

there are thin to thick lenses of very fine sandy loam or fine sandy loam. The 2C horizon is massive or appears in the form of plates or weak prisms. Consistence is firm or very firm.

Correlation Note: Map units 182A and 182B have some strata of loamy material in the clayey 2C horizon which are outside the range of the Elmridge series. This should not significantly affect use and management on a local basis for most purposes.

Endoaquents

Endoaquents consist of very deep, somewhat poorly drained soil material that has been disturbed. Most areas of these soils are associated with glacial till, but also occur in slight depressions of outwash and alluvium. Slopes range from 0 to 8 percent.

Endoaquents occur mostly as areas associated with construction sites, recreation areas, and associated cut and fill areas. Former soil horizons have been buried, removed, or truncated so that the diagnostic horizons for other soil orders are absent. Most fill material is earthen material from onsite land shaping.

These soils are named above the series level in the soil classification system because of variability in the material and a lack of soil features that would permit more detailed classification. For these reasons a typical pedon of Endoaquents, smoothed, is not provided. Endoaquents have textures of loam to loamy sand, and may have mucky layers. Rock fragment content ranges from 0 to 30 percent by volume. Depth to bedrock is usually greater than 72 inches.

Colors in the surface and substratum horizons range in hue from 2.5Y to 2.5YR with value of 3 to 6 and chroma of 1 to 3. Soft masses of iron accumulation, indicating seasonal saturation, are present within 18 inches of the surface. Reaction is very strongly acid to neutral in the surface horizon, and very strongly acid to moderately alkaline in the subsoil and substratum. Consistence and structure are variable.

Endoaquolls

Endoaquolls consist of very deep, somewhat poorly drained to very poorly drained soils formed in material recently deposited by streams and rivers. Endoaquolls are on the most actively flooded areas along major and secondary streams in the county. Slopes range from 0 to 3 percent.

Endoaquolls occur with better drained Hapludolls. Endoaquolls are commonly near Teel soils on flood plains. They are also near Sun and Fonda soils on upland till plains.

Endoaquolls have little or no soil profile development. Endoaquolls are in that part of the flood plain where intermittent scouring and deposition of sediment causes the composition and properties to differ from place to place. Because of the wide range of texture and other characteristics, a typical pedon of Endoaquolls is not provided.

Generally the surface layer of these soils is approximately 11 inches thick. The depth to bedrock is more than 60 inches. Rock fragments including gravel, channers and cobblestone range from 0 to 50 percent. Endoaquolls are very strongly acid to neutral in the surface layers, and moderately acid to moderately alkaline in the substratum. Organic carbon content is irregular throughout the profile.

The surface layer has hue of 10YR to 5Y, value of 1 to 3, and chroma of 1 or 2. Soft masses of iron accumulation and iron depletions are present in the lower part. Textures are loamy sand to silt loam with or without gravelly or very gravelly analogs.

The substratum has hue of 10YR to 5Y, value of 3 to 6, and chroma of 0 to 3. Soft masses of iron accumulation and iron depletions are present throughout. Texture is loamy sand to silty clay loam and the gravelly or very gravelly analogs of those textures.

Farmington Series

Soils of the Farmington series are shallow and well drained. They formed in glacial till 10 to 20 inches thick over limestone bedrock on benches and along tops of bedrock controlled ridges. Slopes range from 2 to 25 percent.

Farmington soils are near areas of moderately deep to bedrock Galway and Angola soils, and very deep Lansing and Georgia soils.

Typical pedon of Farmington loam, 2 to 8 percent slopes, in Fulton County, town of Ephratah, 8,000 feet west of the intersection of Bolster Hill Road and Saltsman Road, 600 feet east of the Richard Hart residence, in a hayfield; USGS Lasselsville, NY topographic quadrangle; WGS84; lat. 43 degrees, 01 minutes, 06 seconds N. and long. 74 degrees, 36 minutes, 05 seconds W.

Ap—0 to 7 inches, very dark grayish brown (10YR 3/2) loam, light brownish gray (10YR 6/2) dry; moderate medium and fine granular structure; very friable; many fine and few medium roots; 6 percent rock fragments; neutral (limed); clear smooth boundary.

Bw—7 to 13 inches, dark brown (7.5YR 3/4) gravelly loam; weak medium subangular blocky structure parting to moderate fine granular; very friable; many fine roots; 20 percent rock fragments; slightly alkaline; abrupt wavy boundary.

2R—13 inches, limestone bedrock.

The thickness of the solum and depth to bedrock range from 10 to 20 inches. Rock fragments range from 5 to 35 percent by volume in the solum. Clay content ranges from 10 to 27 percent. The soil reaction ranges from strongly acid to neutral in the A horizon and from moderately acid to slightly alkaline in the B horizon. Free carbonates are in the fine-earth fraction above bedrock in some pedons.

The Ap horizon has hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 1 to 3. Dry color value is 6 or more. Texture is fine sandy loam, loam, or silt loam in the fine-earth fraction. Some pedons may have an A horizon.

The B horizons have hue of 7.5YR to 2.5Y, value of 3 to 5, and chroma of 2 to 6. The color can be mottled with litho chromic ghosts related to the underlying bedrock. Texture is fine sandy loam, very fine sandy loam, loam or silt loam in the fine-earth fraction. Some pedons have redoximorphic accumulations in the lower part of the B horizon. It has weak or moderate, fine or medium subangular blocky or granular structure. Consistence is very friable or friable.

The 2R horizon is dominantly limestone, dolomite, or dolomitic limestone bedrock, but hard shale or sandstone underlies some pedons.

Fonda Series

Soils of the Fonda series are very deep and very poorly drained. They formed in fine textured, water sorted sediments on glacial lake plains and in depressions on till plains in the Mohawk Valley. Slopes range from 0 to 1 percent.

Fonda soils are in a drainage sequence with moderately well drained Hudson soils, somewhat poorly drained Rhinebeck soils, and poorly drained Madalin soils. It is commonly near Churchville soils where clayey sediments are overlying loamy till, and Timakwa soils where organic deposits are thicker than 16 inches. In areas on till plains, Fonda soils are associated with moderately well drained Georgia soils, somewhat poorly drained Manheim soils, and poorly drained Ilion soils which lack overlying clayey sediments.

Typical pedon of Fonda mucky silt loam, 0 to 1 percent slopes, in an area of cut-over woods, Fulton County, town of Johnstown, 2 miles west of the city of Johnstown on State Route 67, and 0.1 mile northeast of 90 degree turn of Oaksford Road; USGS

Peck Lake 7.5 minute topographic quadrangle; lat. 43 degrees 02 minutes 52.86 seconds N. and long. 74 degrees 25 minutes 4.5 seconds W.

A—0 to 6 inches, black (10YR 2/1) mucky silt loam; very dark brown (10YR 2/2) crushed; dark gray (7.5YR 4/1) dry; strong very coarse granular structure; very friable; many roots; neutral; abrupt smooth boundary.
Bg1—6 to 12 inches; dark gray (10YR 4/1) silty clay; weak coarse subangular blocky structure; very plastic; few fine roots; few fine pores; few medium prominent yellowish brown (10YR 5/6) soft masses of iron accumulation; neutral; clear smooth boundary.
Bg2— 12 to 40 inches, dark gray (10YR 4/1) silty clay; weak coarse subangular blocky structure; very plastic; few fine pores; many (30 percent) medium distinct dark yellowish brown (10YR 4/4) soft iron accumulations within peds; neutral; clear smooth boundary
C1—40 to 46 inches, gray (2.5Y 5/1) silty clay; thin layers of silt with clay give crude very thick plate—like divisions; moderately plastic; common fine and medium distinct light olive brown (2.5Y 5/4) soft iron accumulations, and few medium prominent dark gray (N 4/0) areas of iron depletions; slightly alkaline, strongly effervescent; clear smooth boundary.
C2—46 to 54 inches, grayish brown (2.5Y 5/2) silty clay loam with thick lenses of fine sandy loam or loam; massive; firm; slightly sticky, moderately plastic; 2 percent fine gravel; common medium and coarse faint gray (2.5Y 5/1) and few medium prominent dark gray (N4/0) areas of iron depletion; few fine distinct light olive brown (2.5Y 5/4) soft iron accumulations; slightly alkaline, strongly effervescent; abrupt smooth boundary.
C3—54 to 60 inches, grayish brown (2.5Y 5/2) silty clay with about 20 percent areas of dark grayish brown (2.5Y 4/2); massive with few thick varves; firm; moderately sticky, moderately plastic; common medium faint gray (2.5Y 5/1) and few medium prominent dark gray (N 4/0) areas of iron depletion; common medium distinct light olive brown (2.5Y 5/6) soft iron concentrations; moderately alkaline, strongly effervescent.

The thickness of the solum and depth to carbonates range from 20 through 44 inches. Depth to bedrock is greater than 60 inches. Rock fragments are commonly absent in the upper 40 inches, but some pedons have a few erratic stones or pebbles present. The section from 10 to 40 inches averages between 35 and 55 percent clay, but individual subhorizons are either less or more than those limits in some pedons. Redoximorphic features consisting of accumulations of iron/manganese oxides or iron/clay depletions are found in subsoil horizons.

Some pedons have a black O horizon 1 to 4 inches thick.

The A horizon has hue of 10YR, value of 2 to 3, and chroma of 1 to 3, or it is neutral. Texture is silt loam or silty clay loam with or without organic modifiers, and contains between 10 and 18 percent organic matter. Structure is granular or very fine blocky. Consistence is very friable. Reaction is slightly acid or neutral. Some pedons have an Ap with a similar color range.

The Bg horizon is neutral in color or has hue of 5YR to 5Y, value of 4 to 6, and chroma of 0 to 2. It has few to no redoximorphic features in the upper part and few to many in the lower part. Texture of the fine-earth fraction is silty clay loam, silty clay or clay. Structure is weak through strong prismatic, blocky or subangular blocky. Some patchy clay films occur on vertical faces of peds in some pedons. Consistence is sticky or very sticky, and plastic or very plastic. Reaction ranges from slightly acid to moderately alkaline.

The C horizon is neutral in color, or has hue of 2.5YR to 5Y, value of 4 to 6, and chroma of 0 to 2. It is typically calcareous, varved silty clay loam, silty clay or clay. Some pedons may have thin strata of coarser material.

Fredon Series

Soils of the Fredon series are very deep and somewhat poorly drained. They formed in water-sorted materials on outwash plains and terraces. Slopes range from 0 to 3 percent.

Fredon soils are in a drainage sequence with somewhat excessively drained Alton soils. Fredon soils are commonly near moderately well drained Ninigret soils which are generally more acid above 40 inches deep, and the very poorly drained Scarboro soils which have less rock fragments throughout.

Typical pedon of Fredon loam, 0 to 3 percent slopes, in Fulton County, town of Broadalbin, in a hayfield, 725 feet north-northwest of the intersection of State Route 29 and Stevers Mills Road; USGS Broadalbin topographic quadrangle; WGS83; lat. 43 degrees, 03 minutes, 41.3 seconds N. and long. 74 degrees, 10 minutes, 42.4 seconds W.

Ap—0 to 9 inches, very dark grayish brown (10YR 3/2) loam; weak medium subangular blocky structure parting to moderate medium granular; very friable; many very fine and few fine roots; 2 percent gravel; neutral (limed); abrupt smooth boundary.

Bw—9 to 18 inches, brown (10YR 5/3) fine sandy loam; weak coarse and medium subangular blocky structure; very friable; common very fine roots; 2 percent gravel; many medium and coarse distinct yellowish brown (10YR 5/6) soft masses of iron accumulation; common medium faint grayish brown (10YR 5/2) iron depletions; neutral (limed); clear smooth boundary.

Bg—18 to 26 inches, grayish brown (2.5Y 5/2) fine sandy loam; weak very thick platy structure; friable; few thin pockets of loamy fine sand; few very fine roots; 2 percent gravel; many medium prominent yellowish brown (10YR 5/6) soft masses of iron accumulation; common medium faint gray (2.5Y 5/1) iron depletions; neutral; clear wavy boundary.

2C—26 to 55 inches, mixed olive brown (2.5Y 4/3) and light olive brown (2.5Y 5/3) weakly stratified very gravelly loamy sand and sand; single grain; loose; 45 percent gravel, 3 percent cobbles; neutral; abrupt smooth boundary.

3C—55 to 65 inches, dark gray (2.5Y 4/1) silty clay; massive; firm; a trace of gravel; slightly alkaline, strongly effervescent.

The thickness of solum ranges from 22 to 40 inches. Depth to bedrock is more than 72 inches. Content of rock fragments ranges from 2 to 35 percent in the A and B horizons, and from 10 to 65 percent in the 2C horizons. Unless limed the soil ranges from strongly acid to neutral in the solum and from moderately acid to moderately alkaline in the 2C horizon.

The A and Ap horizons have hue of 10YR or 2.5Y, value of 2 to 4, and chroma of 1 or 2. They are loam, fine sandy loam, very fine sandy loam, or silt loam.

The BA horizon, where present, typically has the same characteristics as the B horizons and is 0 to 4 inches thick.

The B horizons have hue of 7.5YR to 5Y, value of 4 to 6, chroma of 1 to 4. They are loam, fine sandy loam, very fine sandy loam, or silt loam in the fine- earth fraction. The B horizon has weak or moderate subangular blocky, weak coarse prismatic or platy structure. It ranges from very friable to firm in subhorizons.

The BC horizon, where present, typically has characteristics similar to the B horizons and is 0 to 5 inches thick.

The 2C horizon has hue of 5YR to 5Y or is neutral, value of 3 to 6, and chroma of 0 to 4. It is coarse sand to loamy fine sand in the fine-earth fraction, and is commonly stratified. It may be calcareous or noncalcareous.

Correlation Note: Map unit 197A has strata of finer material below 50 inches than is allowed in the range of the Fredon series. This should not significantly affect use and management on a local basis for most purposes.

Galway Series

Soils of the Galway series are moderately deep and well drained soils that formed in glacial till over limestone, dolomite or calcareous sandstone. Slopes range from 3 to 15 percent.

Galway soils are near Charlton, Paxton, Woodbridge, Lansing and Georgia soils which are all very deep to bedrock. Galway soils are also near somewhat poorly drained Angola soils and shallow to bedrock Farmington soils.

Typical pedon of Galway loam, 3 to 8 percent slopes, in Fulton County, town of Ephratah, about 1,460 feet east of the north to west 90 degree turn, and about 800 feet north of Bolster Hill Road, in a hayfield on the Richard Hart farm; USGS Lasselsville topographic quadrangle; WGS83; lat. 43 degrees, 00 minutes, 56.2 seconds N. and long. 74 degrees, 35 minutes, 31.4 seconds W.

Ap—0 to 7 inches, very dark grayish brown (10YR 3/2) loam; light brownish gray (10YR 6/2) dry; weak fine and medium granular structure; friable; many fine and very fine, and few coarse roots; 3 percent gravel; moderately acid; abrupt smooth boundary.

Bw1—7 to 16 inches, brown (10YR 5/3) loam; moderate medium subangular blocky structure; friable; common fine and very fine, and few medium roots; 5 percent gravel; many very dark grayish brown (10YR 3/2) organic coats in root channels; slightly acid; clear smooth boundary.

Bw2—16 to 27 inches, brown (10YR 5/3) fine sandy loam ; moderate medium subangular blocky structure; friable; 5 percent gravel, 5 percent soft shale fragments; common fine yellow (10YR 7/6) ghosts of rock fragments; slightly acid, but slightly effervescent in some peds and portions of Bw2; abrupt smooth boundary.

2R—27 inches, partly fractured gray limestone bedrock; strongly effervescent.

The thickness of solum ranges from 18 to 30 inches and depth to carbonates ranges from 14 to 40 inches. Depth to bedrock ranges from 20 to 40 inches. Rock fragments, by volume, range from 0 to 35 percent in the A horizon, 3 to 35 percent in the B horizon, and 5 to 70 percent in the C horizon. The soil is moderately acid to neutral in the A horizon, moderately acid to slightly alkaline in the B horizon, and slightly or moderately alkaline in the C horizon.

The Ap or A horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 or 3. Texture is silt loam or loam in the fine-earth fraction. The structure is fine to coarse granular or fine to medium subangular blocky. The consistence is very friable or friable. The A horizon has a thickness of 2 to 5 inches.

The Bw horizon has hue of 5YR to 2.5Y, value of 3 to 6, and chroma of 3 to 6. Faint or distinct mottles or redoximorphic concentrations with chroma higher than 2 occur in the lower part of some pedons. Texture of the fine-earth fraction is silt loam, loam, or fine sandy loam. It has weak or moderate, fine to coarse, subangular blocky or granular structure. Consistence ranges from very friable to firm.

The BC horizon, if present, is similar to the Bw but differs by having free carbonates and chroma as low as 2.

The C horizon, if present, has hue of 5YR to 2.5Y, value of 3 to 6 and chroma of 2 to 4. If chroma is 2, the value is 4 or more. Texture ranges from silt loam to sandy loam in the fine-earth fraction. It is friable or firm. It is calcareous in some part.

The 2R horizon is limestone, dolomitic limestone, or calcareous sandstone bedrock.

Georgia Series

Soils of the Georgia series are very deep and moderately well drained. They formed in loamy glacial till derived mainly from limestone, shale or slate, with small amounts of granite. They are on till plains and low hills in the Mohawk Valley. Slopes range from 3 to 8 percent.

Georgia soils are near somewhat poorly drained Darien and poorly drained Ilion soils which have more clay in subsoil. Georgia soils are also adjacent to Mohawk and Manheim soils which have a darker color due to black shale in the substratum, and Galway and Palatine soils which are moderately deep to bedrock.

Typical pedon of Georgia silt loam, 3 to 8 percent slopes, in Fulton County, town of Oppenheim, in a hayfield, about 1,275 feet south of County Route 108, and about 700 feet west of NY Route 331; USGS Oppenheim topographic quadrangle; WGS83; lat. 43 degrees, 02 minutes, 10.6 seconds N. and long. 74 degrees, 43 minutes, 00.9 seconds W.

Ap—0 to 8 inches; very dark grayish brown (10YR 3/2) silt loam; moderate fine and medium granular structure; friable; many fine and very fine, and few medium roots; 5 percent rock fragments; neutral; abrupt smooth boundary.

BA—8 to 12 inches; olive brown (2.5Y 4/3) silt loam; moderate medium subangular blocky structure; friable; common fine and very fine roots; common vertical pores filled with very dark grayish brown (10YR 3/2) worm casts; 5 percent rock fragments; neutral; clear wavy boundary.

Bw1—12 to 18 inches; olive brown (2.5Y 4/3) loam; moderate medium subangular blocky structure; friable; few very fine, fine and medium roots; 5 percent rock fragments; common medium prominent strong brown (7.5YR 4/6) soft masses of iron accumulation; common medium and coarse faint grayish brown (2.5Y 5/2) iron depletions; neutral; clear wavy boundary.

Bw2—18 to 24 inches; light olive brown (2.5Y 5/3) loam; weak medium subangular blocky structure; friable; few very fine, fine and medium roots; 10 percent rock fragments; common black (10YR 2/1) shale chips; many medium distinct dark yellowish brown (10YR 4/4) soft masses of iron accumulation; slightly alkaline; clear wavy boundary.

BC—24 to 32 inches; dark gray (2.5Y 4/1) loam; weak fine and medium subangular blocky structure; friable; 10 percent rock fragments; common black (10YR 2/1) shale chips; many fine and medium distinct dark yellowish brown (10YR 4/4) soft masses of iron accumulation; slightly alkaline; gradual wavy boundary.

C1—32 to 42 inches; dark gray (2.5Y 4/1) loam; massive; friable; many soft black (10YR 2/1) shale chips; 10 percent rock fragments; many fine and medium distinct dark yellowish brown (10YR 4/4) soft masses of iron accumulation; slightly alkaline; clear wavy boundary.

Cd2—42 to 50 inches; dark grayish brown (10YR 4/2) fine sandy loam; massive; very firm; 10 percent gravel, 3 percent cobbles; many soft black (10YR 2/1) shale chips; slightly alkaline, strongly effervescent.

The thickness of the solum ranges from 16 to 32 inches. Depth to bedrock is more than 60 inches. Rock fragments range from 0 to 55 percent in individual horizons and the weighted average in the control section ranges from 5 to 35 percent. Rock fragments consist mainly of weathered limestone, shale and slate with small amounts of granite. Reaction typically ranges from strongly acid to neutral, but ranges to slightly alkaline in the lower solum and substratum of some pedons. Depth to free carbonates is greater than 40 inches.

The A horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 or 3. Texture is loam or silt loam in the fine-earth fraction.

The BA horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 3 to 6. Texture is fine sandy loam, loam, or silt loam in the fine-earth fraction.

The Bw horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 3 to 6. Texture is fine sandy loam, loam, or silt loam in the fine-earth fraction.

The BC horizon has hue of 10YR to 5Y, value of 4 or 5, and chroma of 1 to 4. Texture is fine sandy loam, loam or silt loam in the fine-earth fraction.

The C horizon is neutral or has hue of 10YR to 5Y, value of 3 to 5, and chroma of 1 to 4. Texture is fine sandy loam, loam, or silt loam in the fine-earth fraction.

Hapludolls

Hapludolls consist of very deep, well drained to moderately well drained soils formed in material recently deposited by streams and rivers. Hapludolls are on the most actively flooded areas along major and secondary streams in the county. Slopes range from 0 to 3 percent.

Hapludolls occur with somewhat poorly drained to very poorly drained Endoaquolls. Hapludolls are commonly near Teel soils on flood plains. They are also near Sun and Fonda soils on upland plains.

Hapludolls have little or no soil profile development. Hapludolls are in that part of the flood plain where intermittent scouring and deposition causes the composition and properties to differ from place to place. Because of the wide range of texture and other characteristics, a typical pedon of Hapludolls is not provided.

Generally the surface layer of these soils is approximately 10 inches thick. The depth to bedrock is more than 60 inches. Rock fragments including gravel, channers and cobblestone range from 0 to 50 percent. Hapludolls are very strongly acid to neutral in the surface layers, and moderately acid to moderately alkaline in the substratum. Organic carbon content is irregular throughout the profile.

The surface layer has hue of 10YR to 5Y, value of 2 to 3, and chroma of 1 to 3. Textures are loamy sand to silt loam with or without gravelly or very gravelly analogs.

The substratum has hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 to 3. Texture is loamy sand to silty clay loam and the gravelly or very gravelly analogs of those textures.

Henniker Series

The Henniker series consists of very deep, well drained soils on glacial till plains. These soils formed in loamy till with a dense substratum. Slopes range from 3 to 35 percent.

Henniker soils are in a drainage sequence with the moderately well drained Metacomet soils and the somewhat poorly drained Pillsbury soils. Other associated soils are moderately deep Tunbridge and shallow to bedrock Lyman soils. Also nearby are Becket soils which have spodic material or an accumulation of iron and organic compounds in the subsoil, and Monadnock soils which lack a dense substratum.

Typical pedon of Henniker fine sandy loam, in a map unit of Henniker fine sandy loam, 3 to 8 percent slopes, in Fulton County, town of Oppenheim, 1,000 feet north of a point on Lotville Road that is 1,400 feet west of Junction with North Road; USGS Oppenheim topographic quadrangle; NAD27; lat. 43 degrees 06 minutes 30 seconds N. and long. 74 degrees 39 minutes 45 seconds W.

Oe—0 to 2 inches; very dark brown (10YR 2/2) moderately decomposed plant material; weak fine and medium granular structure; very friable; many fine and very fine roots; very strongly acid; abrupt wavy boundary.

Ap—2 to 8 inches; very dark grayish brown (10YR 3/2) fine sandy loam; weak fine and medium granular structure; friable; many fine and very fine, common medium, and

few coarse roots; 5 percent gravel, 3 percent cobbles; very strongly acid; clear smooth boundary.

Bw1—8 to 20 inches; dark yellowish brown (10YR 4/6) gravelly fine sandy loam; weak fine and medium subangular blocky structure; friable; common fine roots, and few medium and coarse roots; 10 percent gravel, 5 percent cobble, and 1 percent stone; very strongly acid; clear wavy boundary.

Bw2—20 to 31 inches; dark yellowish brown (10YR 4/4) gravelly fine sandy loam; weak medium and coarse subangular blocky structure; friable; few fine and medium roots; 15 percent gravel, 7 percent cobble, 3 percent stones; very strongly acid; abrupt wavy boundary.

Cd1—31 to 52 inches; brown (10YR 4/3) gravelly loamy fine sand; 30 percent fine sandy loam lenses; massive with weak medium plate-like divisions; very firm, brittle; 15 percent gravel, 5 percent cobble, 2 percent stones; few fine scattered roots; common medium and coarse prominent yellowish red (5YR 4/6) soft masses of iron accumulation mainly in the loamy lenses; common medium and coarse faint light brownish gray (10YR 6/2) areas of iron depletion, mainly in the loamy lenses; moderately acid; gradual wavy boundary.

Cd2—52 to 72 inches; light olive brown (2.5Y 5/3) gravelly fine sandy loam; 25 percent loamy fine sand lenses; massive with weak medium geogenic plates; very firm, brittle; 15 percent gravel, 5 percent cobble, 2 percent stones; slightly acid.

The thickness of the solum ranges from 18 to 36 inches. Depth to densic contact is 20 to 40 inches. Rock fragments range from 5 to 35 percent throughout the soil. Rock fragments are dominantly granitic and gneissic gravel. Unless the soil is limed, reaction is very strongly acid to moderately acid in the solum and strongly acid to slightly acid in the substratum.

The 0 horizon, where present, has hue of 5YR to 10YR, value of 2 to 4, and chroma of 1 or 2. It is fibric, hemic or sapric material. Oa horizons are up to 3 inches thick.

The Ap horizon has hue of 7.5YR or 10YR, value of 2 to 4, and chroma of 1 to 4. Texture is very fine sandy loam, fine sandy loam, or sandy loam in the fine- earth fraction. Some pedons have an A horizon that has hue of 7.5YR or 10YR, value of 2 to 3, and chroma of 1 to 4. Structure is granular or subangular blocky. Consistence is friable or very friable.

Some pedons have a thin discontinuous E horizon with hue of 7.5YR to 2.5Y, value of 3 to 6, and chroma of 1 or 2. Texture is fine sandy loam, sandy loam, or loamy fine sand in the fine-earth fraction.

Some pedons have a thin discontinuous Bhs or Bs horizon. Bhs horizons have hue of 7.5YR, value of 3, and chroma of 2 or 3. Bs horizons have hue of 5YR or 7.5YR, value of 4 or 5 and chroma of 4 or 6. Texture is fine sandy loam or sandy loam.

The upper part of the Bw horizon has hue of 7.5YR to 2.5Y, value of 3 to 6, and chroma of 4 or 6. The lower part of the Bw horizon has hue of 10YR or 2.5Y, value of 4 to 7, and chroma of 4 to 8. Texture in the upper part is very fine sandy loam, fine sandy loam or sandy loam in the fine-earth fraction. The lower part is fine sandy loam or sandy loam in the fine-earth fraction. Structure in the B horizon is subangular blocky. Consistence is friable or very friable.

The BC horizon, where present, has hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 3 to 6. Texture is fine sandy loam, sandy loam or loamy sand in the fine-earth fraction. It has subangular blocky structure or is massive. Consistence is friable or very friable. It is up to 12 inches thick.

Some pedons have a C horizon that has hue of 2.5Y or 5Y, value of 5 to 7, and chroma of 2 to 8. Chroma of 2 is lithochromic and not reflective of reduced conditions. Texture is sandy loam, loamy fine sand or loamy sand in the fine- earth fraction. It is up to 14 inches thick.

The Cd horizon has hue of 2.5Y or 5Y, value of 4 to 7, and chroma of 2 to 6. Some pedons have hue of 10YR in the upper part. Chroma of 2 is lithochromic and not reflective of reduced conditions. Texture in the fine-earth fraction is loamy fine sand or loamy sand, or it is fine sandy loam or sandy loam with at least 20 percent subhorizons or lenses of loamy fine sand or loamy sand. In some pedons the lenses are coarse, medium or fine sand. Sandy lenses are 1/8 inch to 3 inches thick and are friable to loose. Consistence is firm or very firm in at least 20 percent of subhorizons. Individual aggregates are friable or firm when removed. The horizon has weak or moderate, thin to thick plates, or it is massive.

Correlation Note: Map units 1170B, 1170C, and 1170E and 2170B, 2170C, and 2170E have a pH in the Cd horizon that is slightly out of the Henniker series range. This should not significantly affect use and management on a local basis for most purposes.

Hinckley Series

Soils of the Hinckley series are very deep and excessively drained. They formed in water-sorted sand and gravel on outwash plains, terraces, kames, eskers and deltas. Slopes range from 0 to 50 percent.

Hinckley soils are associated with the Alton soils which have a loamy solum and the somewhat poorly drained Fredon soils. They are also near sandy Windsor and Ninigret soils which have less rock fragments throughout the soil.

Typical pedon of Hinckley gravelly loamy sand, in a map unit of Hinckley gravelly loamy sand, undulating, in Saratoga County, town of Moreau, 500 feet north of the intersection of Redmond Road and Butler Road, in a gravel pit; USGS; Glens Falls topographic quadrangle; NAD27; lat. 43 degrees, 15 minutes, 54 seconds N. and long. 73 degrees, 41 minutes, 49 seconds W.

Ap—0 to 6 inches, very dark grayish brown (10YR 3/2), light brownish gray (10YR 6/2) dry, gravelly loamy sand; weak medium granular structure; very friable; 15 percent rock fragments; many fine roots; strongly acid; abrupt smooth boundary.

Bw1—6 to 16 inches, yellowish brown (10YR 5/4) gravelly loamy sand; weak medium granular structure; very friable; 25 percent rock fragments; common fine roots; strongly acid; clear smooth boundary.

Bw2—16 to 20 inches, yellowish brown (10YR 5/4) very gravelly sand; single grain; loose; 45 percent rock fragments; strongly acid; clear smooth boundary.

C—20 to 72 inches, light brownish gray (2.5Y 6/2) stratified very gravelly sand, with cobbles; single grain; loose; 50 percent rock fragments; strongly acid.

The thickness of the solum ranges from 12 to 30 inches. Rock fragment content of the solum ranges from 5 to 50 percent gravel, 0 to 30 percent cobbles, and 0 to 3 percent stones. Rock fragment content of individual horizons of the substratum ranges from 10 to 55 percent gravel, 5 to 25 percent cobbles, and 0 to 5 percent stones. In some places, gravel content throughout the soil ranges up to 75 percent. The soil ranges from extremely acid to moderately acid, except where limed.

The Ap horizon has hue of 10YR, value of 2 to 4, and chroma of 1 to 3. Texture of the fine-earth fraction is very fine sandy loam, fine sandy loam, sandy loam, loamy fine sand, loamy sand, or loamy coarse sand. Structure is weak or moderate very fine to coarse granular. Consistence is friable or very friable. Undisturbed areas have an A horizon that has hue of 10YR, value of 2, and chroma of 1 to 4.

Some pedons have thin E, Bhs, Bh, or Bs horizons below the A horizon.

The upper part of the Bw horizon has hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 4 to 8. The lower part has hue of 7.5YR to 2.5Y, value of 3 to 6, and chroma of 4 to 8. Texture, to a depth of 10 inches from the surface, is fine sandy loam, sandy

loam, loamy fine sand, loamy sand, or loamy coarse sand in the fine-earth fraction. Below 10 inches it is loamy fine sand, loamy sand, loamy coarse sand, fine sand, sand, or coarse sand in the fine-earth fraction. Structure is weak fine and/or medium granular or the horizon is structureless. It is very friable or loose.

Some pedons have a BC horizon with characteristics similar to both the B and 2C horizons.

The C horizon has hue of 7.5YR to 5Y, value of 3 to 7, and chroma of 2 to 8. Texture is loamy fine sand, loamy sand, loamy coarse sand, fine sand, sand, or coarse sand in the fine-earth fraction, and is stratified.

Hogback Series

Soils of the Hogback series are shallow and well drained. They formed in loamy till on summits, shoulders and backslopes of mountains, ridges and hills. Slopes range from 3 to 60 percent.

Hogback soils are near moderately deep Rawsonville soils, very deep Mundalite soils, and very shallow to shallow Knob Lock soils.

Typical pedon of Hogback fine sandy loam, in a map unit of Rawsonville-Hogback complex, 35 to 60 percent slopes, very rocky, very bouldery, in Fulton County, town of Bleecker, on the summit of Pinnacle Mountain, about 4,100 feet north of the parking area at the northern end of Pinnacle Road; USGS Caroga Lake topographic quadrangle; NAD83; lat. 43 degrees, 13 minutes, 04.3 seconds N. and long. 74 degrees, 23 minutes, 21.3 seconds W.

Oi—0 to 1 inch, very dark gray (7.5YR 3/1) slightly decomposed plant material; weak fine granular structure; very friable; many fine roots; extremely acid; clear smooth boundary.

Oa—1 to 2 inches, black (7.5YR 2.5/1) well decomposed plant material; weak fine granular structure; very friable; many fine, and common medium roots; very strongly acid; abrupt smooth boundary.

E—2 to 3 inches, reddish gray (5YR 5/2) fine sandy loam; weak fine and medium subangular blocky structure; very friable; many fine and common medium roots; 10 percent rock fragments; few fine vesicular pores; extremely acid; clear smooth boundary.

Bh—3 to 4 inches, black (5YR 2.5/1) fine sandy loam; weak fine and medium subangular blocky structure; friable; slightly smeary; common medium and many fine roots; 10 percent rock fragments; few fine vesicular pores; very strongly acid; clear smooth boundary.

Bhs—4 to 18 inches, dark reddish brown (5YR 2.5/2) fine sandy loam; weak medium subangular blocky structure; friable; slightly smeary; many fine and few medium roots; few fine vesicular pores; 10 percent rock fragments; strongly acid; abrupt smooth boundary.

R—18 inches, slightly weathered gneiss bedrock.

The thickness of the solum and depth to bedrock range from 10 to 20 inches. Reaction typically ranges from extremely acid to strongly acid throughout the soil, but some pedons are moderately acid just above the bedrock. Rock fragments are mostly gravel, channers or cobbles and range from 5 to 34 percent throughout the mineral soil. The spodic horizon is 4 to 18 inches thick.

The O horizon has hue of 2.5YR to 7.5YR or it is neutral, value of 2, 2.5, or 3, and chroma of 1. It ranges from slightly decomposed to highly decomposed plant material.

The A horizon, where present, has hue of 5YR to 10YR, value of 2, 2.5, or 3, and chroma of 1 or 2. Texture is fine sandy loam, very fine sandy loam or loam in the fine-earth fraction. It is 0 to 7 inches thick.

The E horizon has hue of 5YR to 10YR, value of 4 to 6, and chroma of 1 or 2. Texture is loamy coarse sand, loamy sand, loamy fine sand, sandy loam, fine sandy loam, very fine sandy loam, or loam in the fine-earth fraction.

The Bh horizon has hue of 2.5YR to 10YR or is neutral and has value and chroma of 2.5 or less.

The Bhs horizon has hue of 2.5YR to 7.5YR, with value and chroma of 3 or less.

Some pedons have a Bs horizon with hue of 5YR to 10YR, with value of 3 to 5, and chroma of 4 to 6.

The B horizon is coarse sandy loam, sandy loam, fine sandy loam, very fine sandy loam or loam in the fine-earth fraction. B horizons range from non-smeary to moderately smeary.

Some pedons have a BC horizon that has hue of 2.5Y, value of 4 or 5, and chroma of 4.

Bedrock is slightly weathered schist, gneiss, granite, or anorthisite.

Hollis Series

Soils of the Hollis series are shallow, well drained soils that formed in glacial till derived mainly from granite and gneiss. They are on bedrock controlled hills and ridges in the uplands. Slopes range from 3 to 35 percent.

Hollis soils are near Charlton, Paxton, Woodbridge, and Ridgebury soils which are all very deep to bedrock, and Chatfield soils which are 20 to 40 inches deep to bedrock.

Typical pedon of Hollis loam, in an area of Chatfield-Hollis complex, 8 to 15 percent slopes, very rocky, in Fulton County, town of Johnstown, 235 feet west of the intersection of NY Route 67 and Mud Road and about 100 feet north of NY Route 67; USGS Peck Lake NY topographic quadrangle; NAD83; lat. 43 degrees, 00 minutes, 19.4 seconds N. and long. 74 degrees, 28 minutes, 20.1 seconds W.

Oe —0 to 1 inch, black (7.5YR 2.5/1) moderately decomposed plant material; weak very fine and fine granular structure; very friable; many very fine and fine roots; extremely acid; abrupt smooth boundary.

Oa —1 to 4 inches, very dark brown (7.5YR 2.5/2) highly decomposed plant material; weak fine granular structure; very friable; many very fine and fine roots and few medium roots; 2 percent gravel;extremely acid; clear wavy boundary.

AB—4 to 9 inches, 70 percent dark brown (7.5YR 3/2) with brown (7.5YR 4/3) loam; weak medium subangular blocky structure; very friable; many fine and very fine roots and common medium roots; 5 percent gravel; very strongly acid; clear wavy boundary.

Bw—9 to 15 inches, brown (7.5YR 4/4) loam; weak medium and coarse subangular blocky structure; friable; many very fine and fine roots and common medium roots; 5 percent gravel; very strongly acid; abrupt wavy boundary.

2R—15 inches, massive, gray, folded gneiss bedrock.

The thickness of the solum and depth to bedrock range from 10 to 20 inches. The content of rock fragments ranges from 5 to 35 percent throughout the mineral soil. Reaction ranges from extremely acid to moderately acid in the organic horizons, and very strongly acid to moderately acid in the mineral horizons.

The O horizon is slightly to highly decomposed organic material.

The A or AB horizon has hue of 7.5YR to 10YR, value of 2 to 4, and chroma of 1 to 3. Dry value is 6 or higher. Texture is sandy loam, fine sandy loam or loam in the fine-earth fraction. Consistence is friable or very friable.

Some pedons have a BA horizon.

The Bw horizon has hue of 7.5YR to 2.5Y, value of 4 or 5, and chroma of 4 to 8. Texture is sandy loam, fine sandy loam or loam in the fine-earth fraction. Structure is

weak granular or weak to moderate subangular blocky. Consistence is friable or very friable.

Some pedons have a thin BC or C horizon with color like the Bw horizon except it includes hue of 5Y. Texture, structure, and consistence are similar to the Bw horizon.

Hudson Series

Soils of the Hudson series are very deep and moderately well drained. They formed in clayey and silty water-deposited material on glacial lake plains. Slopes range from 3 to 15 percent.

Hudson soils are in a drainage sequence with somewhat poorly drained Rhinebeck soils, poorly drained Madalin soils, and very poorly drained Fonda soils. They are near the silty Unadilla, Scio, and Tonawanda soils which have less clay. Hudson soils are near the Elmridge and Aeric Epiaquepts soils which have loamy material overlying the clay deposits and the Churchville soils which are clayey soils underlain by loamy till. Hudson soils also occur near the Lansing and Broadalbin soils which are formed in deep loamy till.

Typical pedon of Hudson silty clay loam, 3 to 8 percent slopes, in Fulton County, City of Gloversville, in the lawn area east of the parking lot at Littauer Hospital, about 525 feet east of the entry road, and 500 feet north of East State Street; USGS Gloversville topographic quadrangle; NAD83; lat. 43 degrees, 04 minutes, 13.3 seconds N. and long. 74 degrees, 19 minutes, 45.4 seconds W.

Ap1—0 to 6 inches, very dark grayish brown (10YR 3/2) silty clay loam; moderate medium granular structure; friable; few medium, and common fine and very fine roots; trace amount of rock fragments; strongly acid; abrupt smooth boundary.

Ap2—6 to 11 inches, dark grayish brown (10YR 4/2) silty clay loam; moderate fine and medium subangular blocky structure; friable; few medium, and common fine roots; trace amount of rock fragments; strongly acid; abrupt smooth boundary.

B/E—11 to 18 inches, brown (10YR 5/3) silty clay loam, 3 percent pale brown (10YR 6/3) E material; moderate medium subangular blocky structure; friable; common fine roots; 2 percent gravel, 1 percent cobble; strongly acid; clear smooth boundary.

Bt—18 to 32 inches, brown (10YR 5/3) silty clay loam; weak medium prismatic structure parting to moderate medium subangular blocky; firm; few fine roots; few fine distinct brown (7.5YR 4/4) masses of iron accumulation, and few fine and medium gray (10YR 6/1) iron depletions along root channels; few discontinuous distinct dark grayish brown (10YR 4/2) clay films on ped faces; few patchy pale brown (10YR 6/3) silt coats on ped faces; moderately acid; gradual smooth boundary.

BC—32 to 60 inches, mixed brown (10YR 5/3), grayish brown (10YR 5/2) and light brownish gray (10YR 6/2) silty clay loam; weak thick varves of silty clay and silt loam; firm; few fine roots; few fine distinct dark yellowish brown (10YR 4/6) areas of iron accumulations along varve planes; few thin faint pale brown (10YR 6/3) coats on varve separations and along root channels; moderately acid.

The thickness of the solum ranges from 20 to 60 inches. Depth to carbonates ranges from 20 to 70 inches. Depth to bedrock is greater than 60 inches. Rock fragments, mostly gravel, range from 0 to 15 percent by volume in surface and subsurface horizons, and from 0 to 10 percent in the horizons below. The soil ranges from very strongly acid to neutral in the A, E and B/E horizons, from very strongly acid to slightly alkaline in the B horizons, and neutral to moderately alkaline in the C horizons.

The Ap and A horizons have hue of 7.5YR to 2.5Y, value of 2 to 5, and chroma of 2 or 3. They have loam, silt loam and silty clay loam textures in the fine-earth fraction.

They have weak to strong, fine or medium granular, or subangular blocky structure, and friable or very friable consistence.

The E horizon, when present, has hue of 7.5YR to 5Y, value of 5 or 6, and chroma of 2 or 3, and is faintly mottled in some pedons. Texture is very fine sandy loam, loam, silt loam or silty clay loam in the fine-earth fraction. The E horizon has weak or moderate subangular blocky or platy structure, and very friable to firm consistence.

The B/E horizon has ranges in characteristics like that of the Bt in the B part, and like that of the E in the E part. The albic material constitutes less than 15 percent by volume of the horizon. Redoximorphic features are few through many and faint, or they are absent.

The Bt horizon has hue of 7.5YR to 5Y, value of 3 to 6, and chroma of 2 to 4. The horizon has both low and high chroma redoximorphic features. In pedons with matrix colors in chroma of 2, the color is lithochromic and not evidence of an aquic moisture regime. The Bt horizon has silty clay loam or silty clay textures with subhorizons in some pedons ranging from silt loam to clay. They have moderate or strong, medium or coarse angular or subangular blocky structure with or without medium to very coarse prisms. They are firm or very firm.

The BC horizon has hue of 7.5YR to 5Y, value of 3 to 6, and chroma of 2 to 4. Texture ranges from silt loam to clay.

The C horizons have hue of 5YR to 5Y, value of 3 to 5, and chroma of 1 to 3. Texture ranges from silt loam to clay. The material is massive, or has plate-like divisions inherited from the varved parent material.

Humaquepts

Humaquepts consist of very deep, poorly drained soils formed in material recently deposited by streams. Humaquepts are on frequently flooded areas along major and secondary streams in the county. Slopes range from 0 to 2 percent.

Humaquepts are commonly near Burnt Vly, Pleasant Lake, and Wonsqueak soils which are composed of thick organic deposits. Humaquepts are also near sandy Searsport and Naumburg soils.

Humaquepts have little or no soil profile development. Humaquepts are in that part of the flood plain where intermittent scouring and deposition of sediments causes the composition and properties to differ from place to place. Because of the wide range of texture and other characteristics, a typical pedon of Humaquepts is not provided.

Generally the surface layer of these soils is approximately 9 inches thick. The depth to bedrock is more than 60 inches. Rock fragments including gravel, channers and cobbles range from 0 to 50 percent. Humaquepts are very strongly acid to moderately alkaline. Organic carbon content decreases irregularly with depth in the profile.

The surface layer has hue of 7.5YR to 5Y, value of 2 to 3, and chroma of 1 to 3. Textures are loamy sand to silt loam and their gravelly or very gravelly analogs.

The substratum has hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 to 3. Texture is loamy sand to silty clay loam and their gravelly or very gravelly analogs.

Ilion Series

Soils of the Ilion series are very deep and poorly drained. They formed in loamy glacial till derived mainly from calcareous black shale, limestone, and siltstone, with an admixture of clayey lake sediments in some areas. They are in depressions on till plains in the Mohawk Valley. Slopes range from 0 to 8 percent.

Ilion soils are in a drainage sequence with the well drained Lansing and Mohawk soils, and the somewhat poorly drained Appleton, Darien and Manheim soils.

Typical pedon of Ilion silt loam, 0 to 3 percent slopes, in Fulton County, town of Oppenheim, in a hayfield, about 1,200 feet northeast of the trail leading from Twin Church Road, .8 mile west of the intersection with County Route 108; USGS Oppenheim, NY quadrangle, NAD83; lat. 43 degrees, 03 minutes, 04 seconds N. and long. 74 degrees, 44 minutes, 38.7 seconds W.

Ap—0 to 7 inches; very dark gray (10YR 3/1) silt loam; dark gray (10YR 4/1 dry); moderate fine granular structure; friable; many very fine, and few fine roots; 1 percent rock fragments; few fine prominent strong brown (7.5YR 5/6) soft masses of iron accumulation along pores; neutral; abrupt smooth boundary.

Eg—7 to 13 inches; dark gray (N 4/0) silty clay loam; moderate fine subangular blocky structure; firm; common very fine, and few fine roots; few fine and medium faint black (N 2.5/0) manganese stains; 1 percent rock fragments; common fine distinct dark grayish brown (10YR 4/2) soft masses of iron accumulation in the matrix, and few fine prominent strong brown (7.5YR 4/6) iron accumulations along pores; neutral; clear wavy boundary.

Btg1—13 to 21 inches; gray (10YR 5/1) silty clay loam; moderate medium and fine subangular blocky structure; firm; greenish gray (10Y 5/1) ped faces; common discontinuous distinct clay films on ped faces; few very fine roots; 1 percent gravel and 1 percent cobble; many medium and fine prominent yellowish brown (10YR 5/6) soft masses of iron accumulation in the matrix; neutral; gradual wavy boundary.

Btg2—21 to 37 inches; grayish brown (10YR 5/2) silty clay loam; weak medium subangular blocky structure; firm; black (N 5/0) ped faces; common discontinuous faint clay films on pore surfaces and ped faces; few very fine roots; 4 percent gravel and 2 percent cobble; common medium prominent yellowish brown (10YR 5/6) soft masses of iron accumulation in the matrix; neutral; gradual wavy boundary.

2C—37 to 72 inches; light olive brown (2.5Y 5/3) gravelly loam; massive; firm; 20 percent gravel and 5 percent cobbles and stones; few fine faint light olive brown (2.5Y 5/4) soft masses of iron accumulation in the matrix; few medium distinct gray (10YR 5/1) iron depletions in the upper 6 inches; moderately alkaline, strongly effervescent.

The thickness of the solum ranges from 24 to 40 inches and depth to carbonates ranges from 20 to 60 inches. Depth to bedrock ranges from 40 inches to more than 8 feet, and may be rippable or hard. Rock fragments range from 0 to 20 percent in the surface and upper part of the subsoil, and 5 to 35 percent in the lower subsoil and substratum. Reaction, unless the soil is limed, ranges from moderately acid to neutral in the Ap and E, moderately acid to slightly alkaline in the Bt, and from slightly alkaline to moderately alkaline in the BC and C.

The Ap horizon has hue of 10YR to 2.5Y, value of 2 or 3, and chroma of 1 or 2. Texture is loam, silt loam, or silty clay loam in the fine-earth fraction. It has weak or moderate, fine or medium granular or subangular structure, and is friable or firm.

The Eg horizon is neutral or has hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 or 2. Texture is loam, silt loam or silty clay loam in the fine-earth fraction. It is massive or has weak platy, angular or subangular blocky structure. Consistence is friable or firm.

The Btg horizon is neutral or has hue of 10YR to 5Y, value of 3 to 6 and chroma of 1 or 2. It has iron depletions and/or accumulations. Faces of peds have chroma of 2. Texture is clay loam or silty clay loam in the fine-earth fraction with weighted average of 28 to 35 percent clay.

Some pedons have a BC horizon containing free carbonates.

The C horizon has hue of 10YR to 5Y, value of 3 to 5 and chroma of 1 to 3. Texture is loam, silt loam or silty clay loam in the fine-earth fraction. It is massive or has plate-like divisions.

Correlation Note: Map units 47A and 47B have a rock fragment content in the lower part of the subsoil that is lower than typical for the Ilion series. This should not significantly affect use and management on a local basis for most purposes.

Knob Lock Series

Soils of the Knob Lock series are very shallow and shallow, and somewhat excessively drained. They formed in thin organic deposits over bedrock on summits and shoulders of mountains, ridges and hills. Slopes range from 3 to 60 percent.

Knob Lock soils are near shallow Lyman soils and moderately deep Tunbridge soils which are dominantly mineral soils.

Typical pedon of Knob Lock mucky peat, in a map unit of Lyman-Knob Lock complex, 15 to 35 percent slopes, very rocky, very bouldery, in Fulton County, town of Stratford, approximately 5.3 miles north of the Village of Stratford and about 2,300 feet north-northeast of a point on Piseco Road, 50 feet east of where it crosses East Canada Creek; USGS Piseco Lake 15 minute topographic quadrangle; NAD83; lat. 43 degrees, 15 minutes, 36.55 seconds N. and long. 74 degrees, 39 minutes, 07.21 seconds W.

Oi—0 to 1 inch, dark brown (7.5YR 3/2) broken face, slightly decomposed plant material, about 90 percent fiber, 75 percent rubbed; weak fine and medium granular structure; very friable; many fine and common medium roots; extremely acid; clear smooth boundary.

Oe—1 to 3 inches, dark reddish brown (5YR 3/2) broken face, mucky peat or moderately decomposed plant material, about 50 percent fiber, 20 percent rubbed; weak fine and medium granular structure; very friable; many fine and common medium roots; extremely acid; abrupt smooth boundary.

Oa—3 to 8 inches, black (5YR 2.5/1) broken face, highly decomposed plant material, about 15 percent fiber, 1 percent rubbed; moderate fine and medium granular structure; very friable; common fine and few medium roots; extremely acid; abrupt smooth boundary.

R—8 inches, unweathered meta-sedimentary bedrock.

The depth to bedrock ranges from 1 to 20 inches. Very thin mineral layers are at the bedrock interface in most pedons. Rock fragments range from 0 to 50 percent by volume in the mineral layers. The organic layers are ultra acid to extremely acid in CaCl2 and mineral layers are extremely acid or very strongly acid.

The Oi horizon is neutral or has hue of 2.5YR to 10YR, value of 2 to 4, and chroma of 0 to 4. It is slightly decomposed leaves, needles, twigs, and moss (fibric material).

The Oe horizon is neutral or has hue of 2.5YR to 10YR, value of 2 to 3, and chroma of 0 to 6. It is moderately decomposed organic matter (hemic material).

The Oa horizon is neutral or has hue of 2.5YR to 10YR, value of 2 to 5, and chroma of 0 to 2. It is highly decomposed organic matter (sapric material).

The mineral horizons, where present, have hue of 5YR to 5B, value of 2 to 7, and chroma of 1 to 3. They are A, E, Bh, Bhs, Bs, or C horizons. They are coarse sand, sand, loamy sand, loamy fine sand, sandy loam, fine sandy loam, very fine sandy loam, loam or silt loam in the fine-earth fraction.

The bedrock or R horizon is mostly anorthositic gneiss, granitic gneiss and meta-sedimentary rock.

Correlation Note: The Knob Lock series is established by this correlation. The Knob Lock series was proposed and the actual official soil series description's typical pedon site is in Essex County, NY. However, Fulton County, NY is being correlated first.

Lansing Series

Soils of the Lansing series are very deep and well drained. They formed in glacial till derived mainly from shale, fine grained sandstone, limestone, and siltstone on till plains and drumlins in the the Mohawk Valley. Slopes range from 2 to 50 percent.

Lansing soils are in a drainage sequence with somewhat poorly drained Appleton soils and poorly drained Ilion soils. Lansing soils are near Mohawk and Manheim soils which are darker in color due to black shale in the substratum. They are also adjacent to moderately deep Galway and Palatine soils.

Typical pedon of Lansing loam, 2 to 8 percent slopes, in Fulton County, town of Oppenheim, in a hayfield, about 475 feet northeast of trail, 1,500 feet northwest of the end of Twin Church Road; USGS Oppenheim topographic quadrangle; NAD83; lat. 43 degrees, 02 minutes, 59.4 seconds N. and long. 74 degrees, 44 minutes, 46.7 seconds W.

Ap—0 to 8 inches; dark brown (10YR 3/3) loam; weak fine and very fine granular structure; very friable; many very fine roots; 5 percent gravel, 2 percent cobbles; slightly acid; abrupt smooth boundary.

BA—8 to 17 inches; 70 percent dark yellowish brown (10YR 4/4), 30 percent dark brown (10YR 3/3) loam; weak fine and medium subangular blocky structure; friable; many very fine roots; 5 percent gravel, 2 percent cobbles; slightly acid; clear wavy boundary.

Bt/E—17 to 23 inches; dark grayish brown (10YR 4/2) loam, 5 percent brown (10YR 4/3) very fine sandy loam; weak fine and medium subangular blocky structure; friable; common very fine roots; 10 percent gravel, 3 percent cobbles; 2 percent patchy faint clay films on bottom surfaces of rock fragments and on surfaces along pores; slightly acid; clear wavy boundary.

Bt—23 to 36 inches; dark grayish brown (10YR 4/2) loam; weak medium subangular blocky structure; firm; common very fine roots; 10 percent gravel, 3 percent cobbles, 1 percent stones; 6 percent discontinuous faint clay films on ped faces and on surfaces along pores; slightly acid; gradual wavy boundary.

BC—36 to 56 inches; olive brown (2.5Y 4/3) gravelly loam; massive; friable; few very fine roots in the upper part; 15 percent gravel, 5 percent cobbles, 3 percent stones; neutral; clear wavy boundary.

Cd—56 to 84 inches; olive brown (2.5Y 4/3) cobbly fine sandy loam; massive with thick plate-like divisions; firm, brittle; 15 percent gravel, 10 percent cobbles, 5 percent stones; moderately alkaline, strongly effervescent.

Thickness of solum ranges from 32 to 60 inches. Depth to bedrock is more than 60 inches. Depth to carbonates ranges from 30 to 60 inches. Rock fragment content ranges from 2 to 45 percent in individual horizons in the solum and 20 to 50 percent in the C horizon. The soil ranges from strongly acid to neutral in the Ap and B horizons and neutral to moderately alkaline in the C horizon. The Ap horizon has hue of 10YR, value of 3 to 5, and chroma of 2 or 3. Texture is very fine sandy loam, loam, or silt loam in the fine-earth fraction.

The E , BA or BE horizons have hue of 10YR, value of 4 to 6, and chroma of 2 to 6. They are very fine sandy loam, loam or silt loam in the fine-earth fraction. They have weak platy or subangular blocky structure.

The Bt/E horizon has properties like the E horizon on exteriors of peds and like the Bt horizon in interiors of peds. The Bt horizon has hue of 10YR to 5Y, value of 3 to 5, and chroma of 2 to 4. Texture is loam, silt loam or silty clay loam in the fine-earth fraction with weighted average of 18 to 28 percent clay. It has weak to strong, medium to coarse subangular blocky structure and/or is prismatic. Consistence is friable or firm. It has few to common redoximorphic features below a depth of 40 inches in some pedons.

The BC horizon, when present, has hue of 10YR to 5Y, value of 3 to 5, and chroma of 2 to 4. Texture is loam, silt loam, or silty clay loam in the fine-earth fraction. Structure is subangular blocky or prismatic, or it is massive. Consistence is friable or firm.

The C or Cd horizon has hue of 10YR to 5Y, value of 3 to 5, and chroma of 1 to 3. Texture is fine sandy loam to silt loam in the fine-earth fraction. It is massive or has weak or moderate, medium or thick plate-like divisions. It is firm or very firm.

Lyman Series

Soils of the Lyman series are shallow to bedrock and somewhat excessively drained. They formed in glacial till on ridges and upper mountain backslopes. Slopes range from 3 to 70 percent.

Lyman soils are associated with the very deep to bedrock Becket, Berkshire, Crary, Monadnock, Potsdam and Skerry soils, and the moderately deep Tunbridge soils.

Typical pedon of Lyman fine sandy loam, in a unit of Tunbridge-Lyman complex, 35 to 60 percent slopes, very rocky, in Hamilton County, town of Benson, 1 mile west of North Road, 0.5 mile north of County Road 6; USGS Lake Pleasant 15 minute topographic quadrangle; NAD27; lat. 43 degrees 15 minutes 36 seconds N. and long. 74 degrees 18 minutes 00 seconds W.

Oi —0 to 1 inch; slightly decomposed hardwood leaves; friable; common very fine roots; very strongly acid; abrupt smooth boundary.

Oa —1 to 2 inches; black (5YR 2/1) highly decomposed organic matter; moderate fine and medium granular structure; very friable; many fine and medium roots; extremely acid; abrupt irregular boundary.

E—2 to 3 inches; pinkish gray (7.5YR 6/2) fine sandy loam; weak fine granular structure; friable; common fine and many medium roots; 5 percent rock fragments; very strongly acid; abrupt broken boundary.

Bs1—3 to 4 inches; brown (7.5YR 4/4) cobbly fine sandy loam; moderate fine granular structure; friable, slightly smeary; common fine and many medium roots; 15 percent rock fragments (5 percent gravel, 10 percent cobbles); very strongly acid; clear irregular boundary.

Bs2—4 to 8 inches; strong brown (7.5YR 5/6) cobbly fine sandy loam; weak fine and medium granular structure; friable; common fine and many medium roots; 15 percent rock fragments (5 percent gravel, 10 percent cobbles); strongly acid; abrupt wavy boundary.

Bs3—8 to 14 inches; brown (7.5YR 5/4) fine sandy loam; weak fine and medium granular structure; friable; common fine and many medium roots; 8 percent rock fragments (5 percent gravel, 3 percent cobbles); strongly acid; abrupt smooth boundary.

R—14 inches; granitic bedrock.

The mineral solum thickness ranges from 10 to 20 inches and corresponds to the depth to bedrock. Rock fragments consist of 5 to 25 percent gravel and 0 to 10 percent cobble throughout, and 0 to 15 percent stone in the A horizon and 0 to 3 percent stone in the B horizon. Rock fragments are schist, granite, and gneiss. The soil ranges from extremely acid to moderately acid throughout, unless the soil is limed.

The O horizon consists of slightly to highly decomposed plant material.

The A horizon is neutral or has hue of 5YR to 10YR, value of 2, 2.5 or 3, and chroma of 0 to 2. Some pedons have Ap horizons with value and chroma of 2 to 4. Ap horizons are typically 6 inches or more thick. Texture is sandy loam, fine sandy loam, very fine sandy loam, loam, or silt loam in the fine-earth fraction.

The E horizon has hue of 5YR to 10YR, value of 4 to 6, and chroma of 1 or 2. Texture is loamy sand, loamy fine sand, sandy loam, fine sandy loam, very fine sandy loam, loam or silt loam in the fine-earth fraction.

The Bhs horizon has hue of 2.5YR to 10YR, value of 2 to 3, and chroma of 1 to 3.

The Bs horizon has hue of 5YR to 10YR, value of 3 to 5, and chroma of 3 to 8. Some pedons have a Bh horizon with value of 2 to 3 and chroma of 1 to 4. Texture of the Bhs, Bs, and Bh is sandy loam, fine sandy loam, very fine sandy loam, loam, or silt loam in the fine-earth fraction.

Some pedons have a BC horizon with hue of 10YR to 5Y, value of 3 to 5, and chroma of 3 or 4. Texture is sandy loam, fine sandy loam, very fine sandy loam, loam, or silt loam in the fine-earth fraction.

The R or 2R layer is generally schist, granite or gneiss.

Madalin Series

Soils of the Madalin series are very deep and poorly drained. They formed in water-deposited material that is high in clay on glacial lake plains. Slopes range from 0 to 3 percent.

Madalin soils are in a drainage sequence with moderately well drained Hudson soils, somewhat poorly drained Rhinebeck soils, and very poorly drained Fonda soils. They are near Tonawanda and Birdsall soils which have less clay in the solum. Madalin soils are also adjacent to Elmridge, Cheektowaga and Aeric Epiaquepts soils which have coarser material overlying the clayey substratum.

Typical pedon of Madalin silty clay loam, 0 to 3 percent slopes, in Fulton County, town of Oppenheim, in a hayfield, 50 feet south of County Route 108 southwest of road culvert and about 0.4 mile east of County Route 151; USGS Oppenheim topographic quadrangle; NAD83; lat. 43 degrees, 03 minutes, 20.5 seconds N. and long. 74 degrees, 43 minutes, 57.5 seconds W.

Ap—0 to 7 inches, very dark grayish brown (10YR 3/2) silty clay loam; grayish brown (10YR 5/2) dry; weak medium subangular blocky structure parting to moderate medium and fine granular; friable; many very fine roots; trace amount of rock fragments; common fine prominent yellowish brown (10YR 5/6) soft masses of iron accumulation in pores and along roots; neutral; abrupt smooth boundary.

Btg1—7 to 12 inches, grayish brown (10YR 5/2) silty clay; moderate fine and medium angular blocky structure; firm; very few patchy faint gray (10YR 5/1) clay films on ped faces; many very fine roots; trace amount of rock fragments; common medium prominent yellowish brown (10YR 5/6) soft masses of iron accumulation in the matrix; common coarse prominent greenish gray (10Y 5/1) areas of iron depletion; neutral; clear smooth boundary.

Btg2—12 to 18 inches, grayish brown (10YR 5/2) silty clay; weak coarse prismatic structure parting to moderate medium and fine subangular blocky; firm; few discontinuous faint gray (10YR 5/1) clay films on ped faces; common very fine roots; trace amounts of rock fragments; common coarse and medium prominent yellowish brown (10YR 5/6) soft masses of iron accumulation in the matrix; common coarse prominent greenish gray (10Y 5/1) areas of iron depletion in the matrix; neutral; clear smooth boundary.

BCg—18 to 30 inches, grayish brown (10YR 5/2) silty clay; weak medium and coarse subangular blocky structure; firm; few discontinuous faint gray (2.5Y 5/1) clay films on ped faces and along pores; few very fine roots; trace amounts of rock fragments; many coarse and medium prominent light olive brown (2.5Y 5/6) soft masses of iron accumulation in the matrix; common medium prominent greenish gray (10Y 5/1) areas of iron depletion in the matrix; slightly alkaline, strongly effervescent; common medium and coarse light gray (2.5Y 7/1) masses of $CaCO_3$; clear smooth boundary.

C1—30 to 46 inches, olive brown (2.5Y 4/3) silty clay loam; massive; firm; 1 percent rock fragments; common fine and medium distinct light olive brown (2.5Y 5/6) soft

masses of iron accumulation in the matrix; common coarse and medium distinct gray (2.5Y 5/1) areas of iron depletion; moderately alkaline, violently effervescent; gradual wavy boundary.

C2—46 to 72 inches, dark grayish brown (2.5Y 4/2) silty clay loam; massive; firm; 3 percent gravel; moderately alkaline, strongly effervescent.

The thickness of solum ranges from 24 to 48 inches. Depth to free carbonates ranges from 18 to 60 inches. Rock fragments range from 0 to 2 percent in the A and B horizons, and from 0 to 20 percent in the C horizon. Reaction ranges from strongly acid to slightly alkaline in the A horizon, moderately acid to slightly alkaline in the B horizon and from neutral to moderately alkaline in the C horizon.

The Ap or A horizon has hue of 7.5YR to 2.5Y, value of 2 or 3, and chroma of 1 or 2. The texture is silt loam, silty clay loam, or silty clay in the fine-earth fraction. Structure is granular or subangular blocky, and consistence is friable or very friable.

The Eg, where present, is neutral or has hue of 7.5YR to 5Y, value of 5 to 7, and chroma of 0 to 2. The texture is silt loam, silty clay loam, or silty clay in the fine-earth fraction with iron accumulations and depletions. Consistence is friable or firm.

The Btg horizons have hue of 7.5YR to 5Y, including 5G and 5GY in some pedons, value of 4 to 6, and chroma of 1 to 6 and have iron accumulations and depletions. Texture is silt loam through clay. Structure is angular blocky or subangular blocky within prisms. Consistence is firm or very firm. Some pedons have a Bw horizon with silt loam texture above the Btg horizon.

The BC horizon has hue of 7.5YR to 5Y, including 5G and 5GY in some pedons, value of 3 to 5, and chroma of 1 to 3. Structure is weak subangular blocky or the material is massive within varves.

The C horizon has hue of 5YR to 5Y, including 5G and 5GY in some pedons, value of 3 to 6, and chroma of 1 to 3. Texture is silty clay loam to clay in the fine-earth fraction. The horizon is massive with varves separated by silt lenses in most pedons.

Correlation Note: Map unit 137A has carbonates in the pedon slightly higher than typical for the Madalin series. This should not significantly affect use and management on a local basis for most purposes.

Manheim Series

Manheim soils are very deep and somewhat poorly drained. These soils formed in till with a high component of black or dark gray shale. These soils are on glaciated upland footslopes and toeslopes. Slopes range from 0 to 8 percent.

Manheim soils are in a drainage sequence with the well drained Mohawk soils and poorly drained Ilion soils. They are near the Lansing and Appleton soils which have a lighter colored solum that lacks a high component of black shale, and the very poorly drained Fonda soils.

Typical pedon of Manheim silt loam, 3 to 8 percent slopes, in an alfalfa field, in Herkimer County, town of Little Falls, 0.6 mile southeast of Eatonville; 200 feet southwest of highway 169 at foot of drumlin; USGS Herkimer topographic quadrangle; NAD27; lat. 43 degrees, 04 minutes, 21 seconds N. and long. 74 degrees, 55 minutes, 14 seconds W.

Ap—0 to 8 inches; very dark brown (10YR 2/2) silt loam; dark grayish brown (10YR 4/2) when dry and crushed; moderate medium and fine granular structure; very friable; many roots; 5 percent rock fragments; neutral; clear smooth boundary.

BA—8 to 18 inches; brown (10YR 4/3) silt loam; moderate fine and medium subangular blocky structure; friable; dark grayish brown

(2.5Y 4/2) ped faces; common roots; common fine pores; faint clay films occupy depressions on vertical faces of peds and on surfaces along pores; 15

percent medium distinct dark yellowish brown (10YR 4/6) soft masses of iron accumulation; many fine faint dark grayish brown (2.5Y 4/2) areas of iron depletion; 5 percent channers, 5 percent gravel; neutral; diffuse wavy boundary.

Bt—18 to 28 inches; dark grayish brown (10YR 4/2) channery silty clay loam; moderate medium subangular blocky structure; friable; few tap roots; common fine pores; patchy clay skins occupy more than 3 percent of both vertical and horizontal faces of peds and on surfaces along pores; common medium distinct yellowish brown (10YR 5/4) soft masses of iron accumulation; 10 percent channers and 5 percent gravel; neutral; diffuse wavy boundary.

BC—28 to 44 inches; dark grayish brown (10YR 4/2) channery silt loam; weak medium subangular blocky structure; friable; few tap roots; common fine pores; clay skins only in pores; few medium distinct yellowish brown (10YR 5/4) soft masses of iron accumulation; 15 percent channers and 10 percent gravel; neutral; clear wavy boundary.

C—44 to 72 inches; dark grayish brown (2.5Y 4/2) gravelly silt loam; weak thick plate-like divisions; firm; few pores; few fine faint brown (10YR 5/3) soft masses of iron accumulation; 15 percent channers and 15 percent gravel; moderately alkaline, strongly effervescent.

The thickness of the solum and depth to carbonates range from 24 to 55 inches. Depth to bedrock is more than 60 inches. Moist matrix color values are 4 or less throughout except for the E portion of the B/E horizon where present. If colors are darker than 4 below 10 inches, any underlying C is equally dark. Rock fragments, commonly firm and very firm shale, range from 5 to 35 percent by volume in the solum and from 5 to 55 percent in the substratum.

The Ap horizon has hue of 10YR or 2.5Y, value of 2 or 3, and chroma of 1 or 2. Dry values are 5 or less. Texture ranges from loam to silty clay loam in the fine-earth fraction. Structure is weak to strong granular or subangular blocky. Consistence is friable or very friable. Reaction is moderately acid to neutral.

The BA has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 or 3. Texture ranges from loam to silty clay loam in the fine-earth fraction. Reaction is moderately acid through neutral.

The Bt horizons have hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 or 3 with common to many redoximorphic features. Ped faces are dominated by chroma of 2, but chroma of 3 or more occupy 40 percent or more of the matrix of the upper part when the soil is broken or cut through the peds. The B horizon ranges from loam to silty clay loam in the fine-earth fraction. Structure is moderate to strong, fine to coarse, blocky or subangular blocky. Consistence is friable or firm. Reaction ranges from moderately acid to neutral.

The BC horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 or 3. Texture ranges from loam to silty clay loam in the fine-earth fraction. Reaction ranges from moderately acid to neutral.

C horizons have hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 1 to 3. Textures ranges from loam to silty clay loam in the fine-earth fraction. C horizons are massive or have plate-like divisions. Consistence is firm or very firm. Some pedons may be friable in the upper 15 inches of the C horizon. Reaction ranges from neutral to moderately alkaline. Some pedons have 2C horizons which are lighter in color.

Merrimac Series

Soils of the Merrimac series are very deep and somewhat excessively drained. They formed in water sorted sand and gravel on glacial outwash plains, kames, and terraces. Slopes range from 0 to 25 percent.

Merrimac soils are adjacent to moderately well drained Ninigret soils and somewhat poorly drained Fredon soils which have a coarse loamy subsoil over a more-contrasting substratum. Merrimac soils are near very poorly drained Scarboro soils which have a mucky surface. They are also near very gravelly Hinckley soils.

Typical pedon of Merrimac fine sandy loam, 3 to 8 percent slopes, in Fulton County, town of Johnstown, southeast of a softball field, about 0.1 mile south of West State Street Extension at a point 0.2 mile east of the junction with NY Route 29A; USGS Peck Lake topographic quadrangle; NAD83; lat. 43 degrees, 03 minutes, 40.1 seconds N. and long. 74 degrees, 22 minutes, 55.3 seconds W.

A—0 to 2 inches, very dark grayish brown (10YR 3/2) fine sandy loam; moderate medium and fine granular structure; very friable; many fine and very fine, and few medium roots; 5 percent gravel; very strongly acid; clear wavy boundary.

Ap—2 to 10 inches, dark brown (10YR 3/3) fine sandy loam; weak medium and coarse subangular blocky structure parting to weak fine granular; very friable; many fine and very fine, and few medium and coarse roots; 5 percent gravel; very strongly acid; abrupt smooth boundary.

Bw1—10 to 20 inches, dark yellowish brown (10YR 4/6) sandy loam; weak coarse and medium subangular blocky structure; very friable; few fine and very fine, and common medium roots; 3 percent gravel, 2 percent cobbles; strongly acid; clear smooth boundary.

Bw2—20 to 24 inches, dark yellowish brown (10YR 4/4) sandy loam; weak medium and coarse subangular blocky structure; very friable; common fine and very fine roots; 3 percent gravel, 3 percent cobbles; strongly acid; gradual wavy boundary.

BC—24 to 30 inches, brown (10YR 4/3) loamy sand; single grain; loose; common fine and very fine roots; 5 percent gravel, 3 percent cobbles; strongly acid; clear wavy boundary.

2C1—30 to 36 inches, mixed olive brown (2.5Y 4/3), dark grayish brown (2.5Y 4/2) and very dark grayish brown (2.5Y 3/2) gravelly sand and loamy fine sand; massive with weak stratification; loose; few very fine roots; 12 percent gravel, 5 percent cobbles; moderately acid; clear smooth boundary.

2C2—36 to 72 inches, 70 percent olive brown (2.5Y 4/3), 30 percent dark grayish brown (2.5Y 4/2) gravelly sand and fine sandy loam; massive with weak stratification; loose; 20 percent gravel, 5 percent cobbles; moderately acid.

The thickness of the solum ranges from 18 to 30 inches. Depth to bedrock is greater than 60 inches. Rock fragments are mainly granite or gneiss, but up to 25 percent are flat, fine grained slate, shale or phyllite fragments. The upper part of the solum commonly has 5 to 20 percent rock fragments and the lower part has 5 to 30 percent. The substratum contains 10 to 55 percent gravel and 5 to 15 percent cobbles. The reaction ranges from extremely acid to moderately acid throughout the profile, unless the soil is limed.

The Ap horizon has hue of 7.5 YR or 10YR, value of 3 or 4, and chroma of 2 through 4. Undisturbed areas have an A horizon with value of 2 or 3, and chroma of 1 or 2 that is 1 to 4 inches thick. Some pedons have a thin, light colored E horizon below the A. The Ap, A and E horizons are very fine sandy loam, fine sandy loam or sandy loam in the fine-earth fraction.

The B horizon has hue of 7.5YR or 10YR in the upper part and 7.5YR to 2.5Y in the lower part, with value of 3 to 6 and chroma of 3 through 8. Texture is sandy loam, fine sandy loam or very fine sandy loam in the upper part, and sandy loam, coarse sandy loam, loamy coarse sand or loamy sand in the lower part. Structure is granular or subangular blocky in the upper part, or the horizon is massive or single grain in the lower part. Some pedons have a BC horizon that is similar to the lower part of the Bw horizon.

The C horizon has hue of 10YR to 5Y, and ranges widely in value and chroma. It consists of stratified coarse sand, sand, gravel and cobbles, and has a weighted average texture of gravelly or very gravelly sand or coarse sand. Some pedons have thin lenses of loamy fine sand or fine sand.

Correlation Note: Map units 210A, B, C, and D have less gravel and thin lenses of fine sandy loam in the substratum that are not typical for the Merrimac series. This should not significantly affect use and management on a local basis for most purposes.

Metacomet Series

The Metacomet series consists of very deep, moderately well drained soils on glacial till plains. These soils formed in a loamy mantle overlying dense sandy till. They are moderately deep to a densic contact and very deep to bedrock. Slopes range from 3 to 15 percent.

Metacomet soils are in a drainage sequence with the well drained Henniker soils and the somewhat poorly drained and poorly drained Pillsbury soils. Metacomet soils are also associated with Becket and Skerry soils having an accumulation of iron and organic compounds in the subsoil, and with Monadnock soils having a friable sandy substratum.

Typical pedon of Metacomet fine sandy loam, 3 to 8 percent slopes, in Fulton County, town of Caroga, about 150 feet east, and 500 feet north of the east end of Hilley Road; USGS Peck Lake 7.5 minute topographic quadrangle; NAD83; lat. 43 degrees 06 minutes 40.1 seconds N. and long. 74 degrees 29 minutes 17.9 seconds W.

Oe—0 to 2 inches; black (7.5YR 2.5/1) moderately decomposed plant material; weak fine and medium granular structure; very friable; many fine and very fine, and common medium and coarse roots; extremely acid; abrupt smooth boundary.

Ap—2 to 8 inches; very dark grayish brown (10YR 3/2) and dark brown (10YR 3/3) fine sandy loam; moderate fine granular structure; very friable; many fine and very fine, and common medium roots; 5 percent gravel, 2 percent cobbles; 2 percent stones; strongly acid; abrupt smooth boundary.

Bw—8 to 20 inches; dark yellowish brown (10YR 4/4) fine sandy loam; weak fine and medium subangular blocky structure; friable; common fine and very fine, and few medium roots; common very fine, and few fine and medium tubular pores; 5 percent gravel, 5 percent cobbles, 3 percent stones; below 16 inches, few fine prominent strong brown (7.5YR 5/8) soft masses of iron accumulation; few fine distinct grayish brown (10YR 5/2) areas of iron depletion; strongly acid; clear wavy boundary.

BC—20 to 27 inches; brown (10YR 4/3) fine sandy loam; weak medium subangular blocky structure; friable; common very fine and few fine roots; common very fine, and few fine and medium tubular pores; 5 percent sub-rounded gravel, 5 percent gravel, 5 percent cobbles, 3 percent stones; common fine prominent strong brown (7.5YR 5/6) soft masses of iron accumulation; few fine faint grayish brown (2.5Y 5/2) areas of iron depletion; common medium prominent strong brown (7.5YR 4/6) soft masses of iron accumulation along root channels; very strongly acid; abrupt smooth boundary.

C—27 to 31 inches; light olive brown (2.5Y 5/3) cobbly loamy sand; massive with weak medium geogenic plates; firm; 10 percent gravel, 5 percent cobbles, 1 percent stones; many very fine tubular pores; many medium and coarse prominent yellowish red (5YR 4/6) soft masses of iron accumulation; common medium distinct light brownish gray (2.5Y 6/2) areas of iron depletion; strongly acid; clear wavy boundary.

Cd—31 to 45 inches; light olive brown (2.5Y 5/3) gravelly loamy sand; massive with weak medium geogenic plates; very firm, brittle; 15 percent gravel, 5 percent cobbles, 1 percent stone; many very fine tubular pores; common medium prominent yellowish red (5YR 4/6) soft masses of iron accumulation; common medium prominent strong brown (7.5YR 5/6) soft masses of iron accumulation along tubular pores in upper part; common medium distinct light brownish gray (2.5Y 6/2) areas of iron depletion; strongly acid; gradual wavy boundary.

C'—45 to 72 inches; grayish brown (2.5Y 5/2) cobbly loamy sand; massive; firm; 10 percent gravel, 5 percent cobbles, 1 percent stone; common fine prominent yellowish brown (10YR 5/6) soft masses of iron accumulation; strongly acid.

The thickness of the solum ranges from 15 to 36 inches. Depth to densic contact ranges from 20 to 38 inches. Depth to bedrock is greater than 60 inches. Rock fragments are dominantly granite and gneiss. Rock fragment content ranges from 0 to 30 percent in the A horizon, 5 to 30 percent in the B horizon and from 5 to 55 percent in the substratum. Total rock fragment content is less than 35 percent in the particle-size control section. Reaction ranges from extremely acid to moderately acid in the solum, and from strongly acid to slightly acid in the substratum.

The O horizon is neutral or has hue of 2.5YR to 10YR, value of 2 to 4, and chroma of 1 or 2. It is slightly to highly decomposed plant material.

The A horizon has hue of 10YR or 7.5Y, value of 2 to 4, and chroma of 1 to 4. The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 2 to 4. Texture of the Ap or A is very fine sandy loam, fine sandy loamy or sandy loam in the fine-earth fraction.

The E horizon, where present, has hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2. Texture is fine sandy loam, sandy loam or loamy fine sand in the fine-earth fraction.

The Bw horizon has hue of 10YR or 2.5Y, value of 3 to 6, and chroma of 3 to 8. Texture is very fine sandy loam (restricted to the upper part of the horizon), fine sandy loam or sandy loam in the fine-earth fraction. Redoximorphic features in the lower Bw horizon are few to many, fine and medium, and faint to prominent.

The BC horizon, where present, is 3 to 12 inches thick. It has hue of 10YR or 2.5Y, with value of 4 to 6 and chroma of 3 to 6. Redoximorphic features are common or many, fine to coarse, and faint to distinct. Texture is fine sandy loam, sandy loam, loamy fine sand or loamy sand in the fine-earth fraction.

The C horizon has hue of 2.5Y, value of 4 to 6, and chroma of 2 to 4. Redoximorphic features are few to many, fine to coarse, and faint to distinct. Texture is sandy loam, loamy fine sand or loamy sand in the fine-earth fraction.

The Cd horizon has hue of 2.5Y or 5Y, value of 5 or 6, and chroma of 2 to 4. Redoximorphic features are few to many, fine to coarse, and faint to distinct. Texture is loamy sand or loamy fine sand in the fine-earth fraction. Some pedons have lower sub-horizons of sandy loam or fine sandy loam. Some pedons have Cd horizons comprised of loamy layers and sandy lenses with a composite texture of loamy sand, loamy fine sand or their gravelly analogues. The lenses range from fine sand to coarse sand and are 1/8 to 2 inches thick. They constitute more than 20 percent of the horizon. The horizon is massive or has weak to moderate, thin to thick geogenic plates. Consistence is firm or very firm, but some lenses may be loose or friable.

Correlation Note: Map units 1171B and 1171C, and 2171B and 2171C have a friable C horizon below the Cd that is thicker than allowed in the range of characteristics of the Metacomet series. This should not significantly affect the use and management on a local basis for most purposes.

Mohawk Series

Mohawk soils are very deep and well drained. They formed in glacial till with a high component of black or dark gray shale. They are on uplands in the Mohawk Valley. Slopes range from 3 to 30 percent.

Mohawk soils are in a drainage sequence with the somewhat poorly drained Manheim soils and poorly drained Ilion soils. They are near Lansing and Appleton soils which have a lighter colored solum and less amounts of black shale material.

Typical pedon of Mohawk silt loam, 3 to 8 percent slopes, in Fulton County, town of Johnstown, in a pasture rotated with corn, about 370 feet south-southwest of a field access road to County Route 116, opposite Subik farm driveway; USGS Peck Lake topographic quadrangle; NAD83; lat. 42 degrees, 59 minutes, 45.6 seconds N. and long. 74 degrees, 26 minutes, 59.1 seconds W.

Ap – 0 to 9 inches, very dark grayish brown (10YR 3/2) silt loam; grayish brown (10YR 5/2) dry; moderate medium and fine granular structure; friable; many very fine, and few fine and medium roots; 3 percent gravel; neutral; abrupt smooth boundary.

BA—9 to 17 inches, 60 percent brown (10YR 4/3) and 40 percent dark brown (10YR 3/3) silt loam; moderate fine subangular blocky structure; friable; many very fine roots; many very fine vesicular, and common fine and medium tubular pores; 5 percent gravel, 1 percent cobbles; neutral; clear wavy boundary.

BE—17 to 23 inches, dark grayish brown (10YR 4/2) loam; weak thick and medium platy structure; friable; common very fine roots; many very fine vesicular, and common fine and medium tubular pores; 5 percent gravel; neutral; clear wavy boundary.

Bt—23 to 35 inches, dark brown (10YR 3/3) silty clay loam; moderate fine subangular blocky structure; firm; few discontinuous faint very dark grayish brown (10YR 3/2) clay films on ped faces and pore surfaces; common very fine roots in the upper part; common very fine and few fine vesicular pores; 25 percent soft masses of black (10YR 2/1) decomposing shale; 10 percent gravel, 1 percent cobble; neutral; gradual wavy boundary.

BC—35 to 43 inches, brown (10YR 4/3) gravelly silt loam; weak fine and medium subangular blocky structure; friable; few patchy faint dark brown (10YR 3/3) clay films on ped faces and pore surfaces; few very fine roots; few very fine pores; 10 percent gravel, 5 percent cobbles; slightly alkaline, strongly effervescent; clear wavy boundary.

Cd1—43 to 53 inches, brown (10YR 4/3) gravelly loam; massive; firm, brittle; few very fine pores; 15 percent gravel, 5 percent cobbles and stones; common fine and medium distinct yellowish brown (10YR 5/6) soft masses of iron accumulation, many coarse distinct gray (2.5Y 5/1) areas of iron depletions; moderately alkaline, violently effervescent; clear wavy boundary.

2Cd2—53 to 80 inches, dark grayish brown (10YR 4/2) gravelly fine sandy loam; massive with thick plate-like divisions; firm, brittle; few very fine pores; 15 percent gravel, 5 percent cobbles, 2 percent stones; moderately alkaline, violently effervescent.

The thickness of the solum ranges from 24 to 45 inches. Depth to bedrock is greater than 60 inches. Depth to carbonates ranges from 20 to 60 inches. Hard rock fragments range from 0 to 20 percent in the solum and 5 to 35 percent in the substratum.

The Ap horizon has hue of 10YR or 2.5Y, value of 2 or 3, and chroma of 1 or 2. Texture is silt loam or loam in the fine-earth fraction. Structure is granular or subangular blocky parting to granular. Consistence is friable or very friable. Reaction is moderately acid to neutral.

The BA and BE horizons have hue of 10YR or 2.5Y, value of 3 through 6 and chroma of 2 or 3. Texture is silt loam or loam in the fine-earth fraction. They have weak or moderate platy or subangular blocky structure. Consistence is friable or firm. Reaction is moderately acid to neutral.

The Bw or Bt horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 or 3. Texture is predominantly loam or silt loam in the fine-earth fraction, but some subhorizons may include fine sandy loam or silty clay loam. Structure is moderate or strong, fine to coarse blocky. Consistence is friable, very friable or firm. Reaction is moderately acid to neutral. The lowest subhorizon is slightly effervescent in some pedons.

The BC horizon, where present, has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 or 3. Texture is predominantly loam or silt loam, but includes fine sandy loam and silty clay loam in the fine-earth fraction. Structure is weak or moderate, angular or subangular blocky, or platy. Consistence is friable or firm. Reaction is neutral or slightly alkaline.

The C or Cd horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 or 3. Texture is fine sandy loam, loam, silt loam, or silty clay loam in the fine- earth fraction. It is massive or has plate-like divisions. Consistence is firm. Reaction is neutral to moderately alkaline, and slightly effervescent to strongly effervescent.

Monadnock Series

Monadnock soils are very deep and well drained. They formed in a loamy mantle overlying sandy glacial till. They occur on upland till plains and mountain side slopes in the Adirondack foothills. Slopes range from 3 to 60 percent.

Monadnock soils are associated with sandy Adams and gravelly Colton soils on nearby outwash plains and terraces. Monadnock soils are adjacent to moderately deep to bedrock Tunbridge soils and shallow Lyman soils. They are also associated with very poorly drained Sabattis soils. In some areas of the Adirondacks, they are near Becket and Skerry soils which have dense till substrata.

Typical pedon of Monadnock fine sandy loam, in a unit of Monadnock-Adams-Colton complex, hilly, bouldery, in Hamilton County, town of Indian Lake, about 1.7 miles west of the intersection of New York Routes 30 and 28 and Cedar River Road, and 30 feet south of Cedar River Road; USGS Blue Mountain 15 minute topographic quadrangle; NAD27; lat. 43 degrees 47 minutes 13 seconds N. and long. 74 degrees 20 minutes 01 second W.

Oi—0 to 1 inch; loose, slightly decomposed leaves, needles and twigs.

A—1 to 2 inch; very dark gray (10YR 3/1) fine sandy loam; moderate fine granular structure; very friable; many fine, common medium and few coarse roots; 10 percent rock fragments; very strongly acid; clear wavy boundary.

E—2 to 7 inches; pinkish gray (7.5YR 6/2) and brown (7.5YR 5/2) sandy loam; weak fine and medium subangular blocky structure; very friable; many fine, common medium and few coarse roots; 10 percent rock fragments; very strongly acid; abrupt wavy boundary.

Bs—7 to 14 inches; brown (7.5YR 4/4) and dark brown (7.5YR 3/4) fine sandy loam; weak fine and medium subangular blocky structure; very friable, many fine, common medium and few coarse roots; 10 percent rock fragments; strongly acid; gradual wavy boundary.

BC—14 to 27 inches; dark yellowish brown (10YR 4/4) gravelly fine sandy loam; massive; very friable; common fine and few medium roots; 20 percent rock fragments; strongly acid; clear wavy boundary.

2C1—27 to 41 inches; light olive brown (2.5Y 5/3) very gravelly loamy sand; single grain; loose; few fine and medium roots; 45 percent rock fragments (5 percent greater than 3 inch); strongly acid; clear wavy boundary.

2C2—41 to 72 inches; light olive brown (2.5Y 5/3) gravelly loamy sand, with discontinuous light yellowish brown (10YR 6/4) lenses of sand; weak discontinuous thick plate-like divisions; loose; 30 percent rock fragments (2 percent greater than 3 inch); strongly acid.

The thickness of the solum ranges from 15 to 30 inches. The A horizon contains 0 to 15 percent gravel or channers, 0 to 6 percent cobbles, and 0 to 3 percent stones or boulders by volume. The B horizon contains 0 to 20 percent gravel or channers, 0 to 6 percent cobbles, and 0 to 3 percent stones. The C horizon contains 0 to 45 percent gravel or channers, 0 to 15 percent cobbles, and 0 to 3 percent stones or boulders by volume. Reaction ranges from extremely acid to moderately acid throughout the soil.

The O horizon ranges from slightly decomposed forest litter to highly decomposed plant material.

The A horizon has hue of 7.5YR or 10YR, value of 2 to 4, and chroma of 1 to 3. The Ap horizon, where present, has hue of 10YR, value and chroma of 2 to 4. Fine-earth texture ranges from sandy loam to loam.

The E horizon has hue of 5YR to 2.5Y, value of 4 to 7, and chroma of 1 or 2. Texture is similar to the A horizon.

The Bs horizon has hue of 2.5YR to 2.5Y, value of 3 to 6, and chroma of 3 to 8. The Bh horizon, where present, has hue of 2.5YR to 7.5YR, value and chroma of 3 or less. The Bhs horizon, where present, has hue of 2.5YR to 7.5YR, value and chroma of 3. Fine-earth texture of the B horizons is dominantly fine sandy loam, but includes loam and very fine sandy loam.

The BC horizon has hue of 7.5YR to 5Y, value of 4 to 6, and chroma of 3 to 8. It has textures of loam to loamy sand in the fine-earth fraction.

The 2C horizon has hue of 10YR to 5Y, value of 4 to 7, and chroma of 2 to 4. It ranges from loamy coarse sand to loamy fine sand in the fine-earth fraction. Some pedons have lenses or pockets of sand. Some pedons have a thin C horizon overlying the contrasting 2C horizon, with texture of fine sandy loam or sandy loam in the fine-earth fraction.

Mosherville Series

Soils of the Mosherville series are very deep and somewhat poorly drained, and have a fragipan subsoil and dense substratum. They formed in loamy till derived from granite, gneiss, sandstone, and some dark shale in lower horizons. Slopes range from 0 to 8 percent.

Mosherville soils are in a drainage sequence with well drained to moderately well drained Broadalbin soils and poorly drained Sun soils. They are associated with Palatine soils which are moderately deep to black shale bedrock. Mosherville soils are near Charlton, Paxton, and Lansing soils which do not have a fragipan subsoil.

Typical pedon of Mosherville loam, 0 to 3 percent slopes, in Fulton County, town of Broadalbin, about 3,000 ft west of Midline Rd., at a point 1.6 miles south-southeast of the intersection with NY Route 29; USGS Broadalbin topographic quadrangle; NAD27; lat. 43 degrees, 01 minutes, 58.6 seconds N. and long. 74 degrees, 11 minutes, 23.9 seconds W.

Ap—0 to 9 inches; very dark grayish brown (10YR 3/2) loam, light brownish gray (10YR 6/2), dry; moderate fine and medium granular structure; friable; many very fine and common fine roots; few fine prominent strong brown (7.5YR 4/6) soft masses of iron concentrations in the lower part; 5 percent rock fragments; strongly acid; abrupt smooth boundary.

Bw—9 to 13 inches; yellowish brown (10YR 5/4) loam; weak fine and medium subangular blocky structure; friable; common fine and very fine roots; 5 percent gravel plus 1 percent cobbles; common fine distinct light brownish gray (10YR 6/2) areas of iron depletion, and common fine and medium distinct strong brown (7.5YR 5/6) soft masses of iron concentrations; strongly acid; abrupt wavy boundary.

2Bx1—13 to 27 inches; brown (10YR 5/3) fine sandy loam; weak very coarse prismatic structure parting to weak thick platy; very firm; slightly brittle; many very fine and common fine vesicular pores; light brownish gray (2.5Y 6/2) faces of prisms with rinds of strong brown (7.5YR 5/6); common medium and coarse distinct gray 2.5Y 6/1) areas of iron depletion, and common medium and fine prominent strong brown (7.5YR 5/6) soft masses of iron concentrations; many very dark gray (10YR 3/1) friable shale fragments; 9 percent gravel plus 1 percent cobbles; strongly acid; gradual wavy boundary.

2Bx2—27 to 37 inches; brown (10YR 4/3) loam; weak very coarse prismatic structure parting to weak thick platy; firm; common fine and very fine vesicular pores; few fine distinct very dark brown (7.5YR 2.5/2) pore linings; light brownish gray (2.5Y 6/2) faces of prisms with rinds of strong brown (7.5YR 5/6); many medium and coarse distinct gray 2.5Y 6/1) areas of iron depletion and many medium yellowish brown (10YR 5/6) soft masses of iron concentrations; many very dark gray (10YR 3/1) friable shale fragments; 10 percent gravel plus 2 percent cobbles; moderately acid; clear wavy boundary.

2BC—37 to 42 inches; light brownish gray (10YR 6/2) fine sandy loam; weak medium and thick platy structure with strong brown faces; friable; common fine and very fine vesicular pores; common fine prominent strong brown (7.5YR 5/6) soft masses of iron concentrations in matrix; many very dark gray (10YR 3/1) shale fragments; 10 percent gravel plus 2 percent cobbles; moderately acid; clear wavy boundary.

2C—42 to 72 inches; olive brown (2.5Y 4/3) fine sandy loam; moderate medium and thick plate-like divisions; firm; 6 percent gravel plus 5 percent cobble plus 1 percent stones; many very dark gray (10YR 3/1) shale fragments; moderately alkaline, strongly effervescent.

The thickness of solum ranges from 38 to 60 inches. Depth to bedrock is in excess of 60 inches. Depth to the fragipan ranges from 13 to 30 inches and commonly ranges widely within a distance of 20 feet. Rock fragments exclusive of shale that disperses upon mechanical analysis range from 1 to 25 percent by volume in the part of the solum above the fragipan and from 5 to 30 percent in the fragipan and C horizon.

The Ap horizon has hue of 10YR or 2.5 Y, value of 3 or 4, and chroma of 2. Typically the texture is silt loam, loam, or very fine sandy loam, and commonly is low in rock fragments. Unless the soil is limed, reaction ranges from strongly acid to slightly acid

Some pedons have a BE horizon below the Ap.

The Bw horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 3 to 6. Texture of the fine-earth fraction is silt loam, loam, or fine sandy loam. Structure ranges from weak granular to very weak fine and medium blocky. Consistence is very friable or friable. Unless the soil is limed, reaction ranges from strongly acid to slightly acid.

The 2E horizon, when present, has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 3 or 4. Texture of the fine-earth fraction is sandy loam or loam. Structure is weak platy or blocky or it is massive. Consistence is friable or firm.

The 2Bx horizon has hue of 10YR or 2.5Y, value of 3 or 5, and chroma of 2 or 3. Texture of the fine-earth fraction is fine sandy loam or loam. Structure is weak or moderate very coarse prismatic. Consistence is firm or very firm and is brittle. Reaction ranges from strongly acid to neutral. Dark, friable shale fragments are conspicuous.

The 2BC horizon has a hue of 10YR to 2.5Y, value of 4 to 6, and chroma of 1 to 4. Texture is fine sandy loam or loam in the fine-earth fraction. It has platy structure, plate-like divisions, or it is massive. Consistence is typically friable or firm. Reaction ranges from strongly acid through neutral

The 2C horizon has a hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 to 4. Texture is fine sandy loam or loam. It has plate-like divisions, or it is massive. Consistence is typically firm. Dark, friable shale fragments are conspicuous. Reaction ranges from moderately acid to moderately alkaline. Some pedons have slight or strong effervescence in the lower part.

Mundalite series

Soils of the Mundalite series are well drained, moderately deep to dense till and very deep to bedrock. They formed in loamy till on backslopes and upper footslopes of glaciated uplands. They are mapped in Fulton County at elevations above 2,200 feet. Slopes range from 15 to 60 percent.

Mundalite soils are associated with moderately deep Rawsonville soils, and shallow Hogback soils. They are mapped near Becket and Potsdam soils which occur at elevations of 2,200 feet and below.

Typical pedon of Mundalite fine sandy loam, in a map unit of Mundalite-Rawsonville complex, 15 to 35 percent slopes, rocky, very bouldery, in a wooded area, in Clinton County, town of Dannemora, about 1.9 mile south of the intersection with State Route 374 and 1.0 mile west of Chazy Lake Road; USGS Moffitsville topographic quadrangle; NAD27; lat. 44 degrees 43 minutes 27 seconds N. and long. 73 degrees 50 minutes 38 seconds W.

Oa—0 to 1 inch, black (5YR 2.5/1) highly decomposed plant material.

E—1 to 3 inches, reddish gray (5YR 5/2) fine sandy loam; weak medium and fine subangular blocky structure; very friable; many fine and very fine, and few medium roots; 7 percent rock fragments; extremely acid; abrupt wavy boundary.

Bh—3 to 5 inches, dark reddish brown (5YR 2.5/2) fine sandy loam; weak medium and fine subangular blocky structure; very friable; many fine and very fine roots; strongly smeary; 7 percent rock fragments; very strongly acid; clear wavy boundary.

Bs1—5 to 14 inches, dark reddish brown (5YR 3/4) fine sandy loam; weak medium and fine subangular blocky structure; very friable; many fine and very fine, and few coarse and medium roots; many fine and very fine pores; moderately smeary; 10 percent gravel; strongly acid; clear wavy boundary.

Bs2—14 to 27 inches, dark reddish brown (5YR 3/4) cobbly fine sandy loam; weak coarse and medium subangular blocky structure; friable; common very fine and fine roots; common fine and very fine pores; moderately smeary; 15 percent rock fragments (including 5 percent gravel); very strongly acid; clear wavy boundary.

Cd1—27 to 37 inches, dark yellowish brown (10YR 3/4) very cobbly fine sandy loam; weak thick and very thick plate-like divisions with loamy sand lenses between plates; very firm; few very fine roots in the upper part; common fine and very fine pores; 35 percent rock fragments (including 10 percent gravel); strongly acid; clear wavy boundary.

Cd2—37 to 72 inches, dark yellowish brown (10YR 4/4) very cobbly loamy sand; massive; very firm; common fine and very fine pores; 40 percent rock fragments (including 20 percent gravel); few fine and medium distinct dark yellowish brown (10YR 4/6) soft masses of iron accumulation in the matrix; strongly acid.

The thickness of the solum and depth to dense basal till range from 25 to 40 inches. Redoximorphic features consisting of iron depletions or accumulations occur within 40 inches of the mineral soil surface. Rock fragments range from 1 to 25 percent in the

mineral solum and from 5 to 50 percent in the substratum. The spodic horizon typically is greater than 18 inches thick. Reaction ranges from extremely acid to moderately acid in the solum, and from very strongly acid to slightly acid in the substratum.

The O horizon consists of slightly to highly decomposed plant material. It is neutral or has hue of 5YR to 10YR, value of 2 or 2.5, and chroma of 1.

The A horizon, where present, has hue of 5YR to 10YR, value of 2 to 3, and chroma of 0 to 2, or the horizon is neutral. Texture of the fine-earth fraction is loam, fine sandy loam or sandy loam. Structure is weak or moderate granular. Consistence is very friable.

The E horizon has hue of 2.5YR to 10YR, value of 4 or 5, and chroma of 0 to 3, or is the horizon neutral. Texture of the fine-earth fraction is loam, fine sandy loam or sandy loam. Structure is weak granular or subangular blocky. Consistence is very friable.

The Bh horizon has hue of 10R to 7.5YR, value of 2 to 3, and chroma of 0 to 2, or it is neutral. Texture of the fine-earth fraction is loam, fine sandy loam or sandy loam. Structure is weak or moderate granular, or subangular blocky. Consistence is very friable or friable.

Some pedons have a Bhs horizon up to 20 inches thick. It has hue of 10R to 7.5YR, value of 3 or 4, and chroma of 2 or 3; or hue of 10YR with value and chroma of 2 or less. Texture of the fine-earth fraction is loam, fine sandy loam or sandy loam. Structure is weak prismatic or subangular blocky. Consistence is dominantly friable, but may also have firm masses.

The Bs horizon has hue of 10R to 7.5YR, value and chroma of 3 to 5. Texture of the fine-earth fraction is loam, fine sandy loam, or sandy loam. Structure is weak subangular blocky. Consistence is dominantly friable, but some pedons have firm masses in the upper part.

Some pedons have a BC horizon that has hue of 7.5YR to 2.5Y, value of 4 or 5, and chroma of 2 to 6. Texture of the fine-earth fraction is fine sandy loam, sandy loam, loamy fine sand or loamy sand. Structure is subangular blocky or platy. Consistence is friable or firm.

The Cd horizon has hue of 10YR to 5Y, value 3 to 6, and chroma of 2 to 4. Texture of the fine-earth fraction ranges from loamy sand to fine sandy loam or sandy loam. Textures of fine sandy loam and sandy loam occur mainly within peds of plate-like divisions. Structure is weak or moderate plate-like, or it is massive. Consistence is firm or very firm.

Naumburg Series

The Naumburg series consists of very deep, somewhat poorly drained and poorly drained soils formed in sandy deltaic or glaciofluvial deposits. These soils are on low parts of sand plains and terraces. Slopes range from 0 to 3 percent.

Naumburg soils are in a drainage sequence with the somewhat excessively drained Adams soils, the moderately well drained Croghan soils, and the very poorly drained Searsport soils. They are associated with Becket, Wonsqueak, Colton, Monadnock, and Henniker soils. Naumburg soils do not have loamy textures as in Becket, Monadnock and Henniker soils. Naumburg soils are not as gravelly as the Colton soils. Naumburg soils lack the thick organic mantle of Wonsqueak soils.

Typical pedon of Naumburg loamy fine sand, in a map unit of Naumburg- Croghan complex, in Hamilton County, town of Indian Lake, about 2.7 miles west of intersection of NY State Route 30 and Cedar River Road, and 900 feet north of Cedar River Road; USGS Blue Mountain 15 minute topographic quadrangle; NAD27; lat. 43 degrees 47 minutes 25 seconds N. and long. 74 degrees 21 minutes 19 seconds W.

Oa—0 to 1 inch; black (5YR 2.5/1) highly decomposed plant material in a mat of fine and medium roots; friable; very strongly acid; abrupt smooth boundary.

A—1 to 5 inches; black (5YR 2.5/1) loamy fine sand; massive; very friable; many fine and medium roots; very strongly acid; abrupt smooth boundary.
E—5 to 8 inches; pinkish gray (7.5YR 6/2) loamy sand; single grain; loose; very strongly acid; clear wavy boundary.
Bh—8 to 10 inches; dark reddish brown (5YR 2.5/2) loamy sand; weak fine and medium granular structure; very friable; very strongly acid; clear wavy boundary.
Bs—10 to 16 inches; brown (7.5YR 4/4) loamy fine sand; massive; friable; common medium prominent dark red (2.5YR 3/6), strong brown (7.5YR 5/8) and faint brown (7.5YR 4/2) soft masses of iron accumulation; very strongly acid; clear smooth boundary.
BC—16 to 19 inches; reddish brown (5YR 5/4) sand; weak thick platy structure ranging to single grain between plates, which appear to be partially cemented by iron-humic material; very friable; common medium faint brown (7.5YR 4/4), brown (7.5YR 5/4) and prominent dark red (2.5YR 3/6) soft masses of iron accumulation; strongly acid; gradual smooth boundary.
C—19 to 72 inches; brown (10YR 5/3) stratified sand, with streaks of black (10YR 2/1) sand; single grain; loose; very strongly acid.

The thickness of the solum ranges from 18 to 42 inches. Depth to bedrock is more than 60 inches. Rock fragments are generally absent, but can range up to 5 percent by volume. Combined thickness of the Bhs and/or Bh and Bs horizons ranges from 7 to 32 inches thick.

The 0a horizon has hue of 5YR to 10YR, or is neutral, with value of 2 to 3, and chroma of 0 to 4. The organic materials are usually well decomposed plant materials derived predominantly from woody vegetation with a smaller amount from herbaceous. The rubbed fiber content is less than 15 percent of the volume. An Oe horizon, up to 2 inches thick, may overlie the Oa horizon in some pedons.

Some pedons have an A or Ap horizon that has hue of 5YR to 10YR, value of 2 to 5, and chroma of 1 to 4. Texture of the fine-earth fraction is fine sandy loam, sandy loam, loamy fine sand, or loamy sand. Ap horizons are up to 14 inches thick and have dry color values of 6. Reaction ranges from extremely acid to strongly acid, unless the soil is limed.

The Eg or E horizon has hue of 5YR to 10YR, value of 5 to 7, and chroma of 1 to 3. Texture is similar to the A or Ap horizon. Consistence is friable to loose. Reaction ranges from extremely acid to strongly acid.

The Bh horizon has hue of 2.5YR to 10YR, value of 2 to 3, and chroma of 1 to 3. Texture of the fine-earth fraction ranges from loamy fine sand to sand. Structure is often weak granular or subangular blocky, but some pedons have single grain. Consistence ranges from very friable to loose, and some pedons have up to 35 percent firm or extremely firm parts. Reaction ranges from extremely acid to strongly acid.

The Bhs horizon, where present, has hue of 2.5YR to 10YR, and value and chroma of 2 or 3. The fine-earth fraction ranges from loamy fine sand to sand. Structure is often weak or moderate granular or subangular blocky. Some pedons are single grain or massive. Consistence is very friable to loose, but can contain up to 20 percent firm parts. Reaction ranges from extremely acid to strongly acid.

The Bs horizon has hue of 5YR to 10YR, value of 3 to 5, and chroma of 3 to 6. Texture of the fine-earth fraction is loamy fine sand to sand. Consistence is very friable to loose, but can contain up to 20 percent firm or very firm parts. Reaction ranges from extremely acid to strongly acid.

The BC horizon has hue of 5YR to 2.5Y, value of 3 to 6, and chroma of 2 to 6. Texture of the fine-earth fraction is loamy fine sand to coarse sand. Consistence is very friable or loose, but some horizons are up to 20 percent firm or very firm. Reaction ranges from extremely acid to strongly acid.

The C horizon has hue of 7.5YR to 5Y, value of 3 to 6, and chroma of 1 to 4. Texture of the fine-earth fraction ranges from loamy fine sand to coarse sand. Reaction ranges from very strongly acid to slightly acid.

Correlation Note: The Naumburg series is using the Hamilton County typical pedon. The range in characteristics in the taxonomic unit description was within range of the Naumburg official series description at the time of the Hamilton County correlation. The consistence in the range in characteristics of the Bs horizon is slightly beyond what is now permitted. This should not affect use and management on a local basis for most purposes.

Ninigret series

Soils of the Ninigret series are very deep and moderately well drained. They formed in loamy deposits over sandy and gravelly materials on outwash plains. Slopes range from 3 to 8 percent.

Ninigret soils are in a drainage sequence with well drained Agawam soils. They are commonly near somewhat poorly drained Fredon soils which are less acid. Ninigret soils are also associated with excessively drained Windsor soils, somewhat poorly drained Stafford soils and very poorly drained Scarboro soils which generally have less rock fragments throughout and lack contrast between the solum and substratum.

Typical pedon of Ninigret loam, 3 to 8 percent slopes, in Fulton County, town of Mayfield, about 2,250 feet south-southeast of State Route 29, at a point 0.2 mile west of Ninemile Tree Road; USGS Gloversville topographic quadrangle; NAD83; lat. 43 degrees, 02 minutes, 19.2 seconds N. and long. 74 degrees, 15 minutes, 03.1 seconds W.

Oe—0 to 2 inches, very dark brown (7.5YR 2.5/2) moderately decomposed plant material; moderate fine granular structure; very friable; few coarse and medium, common fine and many very fine roots; very strongly acid; abrupt smooth boundary.

A—2 to 4 inches, black (7.5YR 2.5/1) loam; moderate fine granular structure; very friable; few coarse and medium, common fine and many very fine roots; very strongly acid; abrupt wavy boundary.

Bw1—4 to 12 inches, 50 percent strong brown (7.5YR 4/6), 50 percent yellowish brown (10YR 5/6) loam; weak medium subangular blocky structure; very friable; few fine and medium, and common very fine roots; very strongly acid; clear wavy boundary.

Bw2—12 to 18 inches, yellowish brown (10YR 5/6) loam; weak medium and coarse subangular blocky structure; very friable; common fine and very fine, and few medium and coarse roots; trace amounts of gravel; common fine and medium faint strong brown (7.5YR 4/6) soft masses of iron accumulation; common fine and medium prominent light olive brown (2.5Y 5/3) areas of iron depletion; strongly acid; clear smooth boundary.

Bw3—18 to 25 inches, dark yellowish brown (10YR 4/4) fine sandy loam; discontinuous grayish brown (2.5Y 5/2) ped faces; weak medium and coarse subangular blocky structure; friable; few very fine roots; 1 percent fine gravel; common medium distinct yellowish brown (10YR 5/6) soft masses of iron accumulation; few coarse faint reddish brown (5YR 4/4) firm masses in the lower 2 inches of the horizon; strongly acid; abrupt smooth boundary.

2C1—25 to 35 inches, light olive brown (2.5Y 5/3) loamy sand; massive; firm; common fine distinct light olive brown (2.5Y 5/6) soft masses of iron accumulation; moderately acid; clear smooth boundary.

2C2—35 to 50 inches, dark grayish brown (2.5Y 4/2) sand; weakly stratified; friable; 5 percent fine gravel; slightly acid; clear smooth boundary.

2C3—50 to 62 inches, dark gray (2.5Y 4/1) fine sand; massive; very friable; slightly acid.

The thickness of the solum ranges from 18 to 38 inches and typically corresponds to the depth of sand or sand and gravel. Rock fragments, mainly rounded pebbles, range from 0 to 15 percent by volume in the solum, from 0 to 30 percent in the substratum above a depth of 40 inches, and from 0 to 60 percent below. Unless limed, the soil is very strongly acid to moderately acid to a depth of 30 inches and very strongly acid to slightly acid below 30 inches.

The O horizon has hue of 7.5YR or 10YR, value of 2 to 3, and chroma of 1 or 2. It has weak or moderate granular structure, or it is massive

The Ap horizon has hue of 7.5YR to 2.5Y, value and chroma of 2 to 4. Dry value is 6 or more. Undisturbed pedons have a thin A horizon with value of 2 to 3, and chroma of 1 to 3. The Ap or A horizon is fine sandy loam, very fine sandy loam, loam or silt loam. It has weak or moderate granular structure and is friable or very friable.

The upper part of the Bw horizon has hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 4 to 8. The lower part of the Bw horizon has hue of 7.5YR to 5Y, value of 3 to 6, and chroma of 2 to 6. Subhorizons with chroma of 2 are below a depth of 20 inches. The Bw horizon has high and low chroma depletions above a depth of 24 inches. Texture is typically fine sandy loam, with less than 50 percent fine or coarser sand or very fine sandy loam, but includes silt loam and loam. The Bw horizon has weak or moderate granular or subangular blocky structure or it is massive. Consistence is very friable or friable. Some pedons have a sandy loam Bw subhorizon or BC horizon less than 5 inches thick just above the 2C horizon.

The 2C horizon has hue of 10YR to 5Y, value of 4 to 7, and chroma of 1 to 6. It typically has redoximorphic features. The horizon is commonly stratified sand and gravel. Texture of individual layers ranges from coarse sand to fine sand to loamy fine sand in the fine-earth fraction.

Palatine Series

Soils of the Palatine series are moderately deep and well drained. They formed in glacial till derived from weakly consolidated, calcareous, dark colored shale, similar to the underlying bedrock. Slopes range from 3 to 25 percent.

Palatine soils are near moderately deep, somewhat poorly drained Angola soils. Palatine soils are also associated with very deep Mohawk and Manheim soils, as well as the moderately deep Galway and shallow Farmington soils which are associated with limestone bedrock.

Typical pedon of Palatine silt loam, 3 to 8 percent slopes, in Fulton County, town of Johnstown, about 1.8 miles east of the junction of State Routes 29 and 30A, then about 2,000 Feet southwest of the barns on Fagan Farm; USGS Gloversville, NY topographic quadrangle; NAD83; lat. 43 degrees, 00 minutes, 57.5 seconds N. and long. 74 degrees, 20 minutes, 01.5 seconds W.

Ap—0 to 7 inches, very dark grayish brown (2.5Y 3/2) silt loam; weak fine and medium granular structure; friable; common fine and very fine roots; common fine tubular pores; 3 percent rock fragments; 10 percent parachanners; neutral; clear smooth boundary.

Bw1—7 to 20 inches, very dark grayish brown (10YR 3/2) parachannery silt loam; weak medium and coarse subangular blocky structure; friable; few fine and very fine roots; few coarse, and common medium tubular pores; 1 percent gravel, 4 percent channers; 20 percent parachanners; neutral; clear wavy boundary.

Bw2—20 to 30 inches, 70 percent dark brown (10YR 3/3), 30 percent very dark grayish brown (10YR 3/2) parachannery silt loam; weak medium and coarse subangular blocky structure; friable; few fine and very fine roots; few coarse, and

common medium tubular pores; 1 percent gravel, 4 percent channers; 25 percent parachanners; neutral; clear wavy boundary.

C—30 to 38 inches, very dark gray (2.5Y 3/1) very channery silt loam; massive with thin and medium plate-like divisions; firm (in place, friable in hand); 35 percent (shale) channers; 24 percent parachanners; moderately alkaline; abrupt wavy boundary.

R—38 inches, black (2.5Y 2.5/1) and very dark gray (2.5Y 3/1) shale; strongly effervescent.

The thickness of the solum ranges from 15 to 30 inches. Depth to shale bedrock ranges from 20 to 40 inches. Rock fragments in the mineral soil, dominantly black shale, range from none to 35 percent in the A horizon, from none to 50 percent in the B horizon and from 35 to 60 percent in the C horizon. Depth to free carbonates commonly ranges from 12 to 30 inches, but some pedons have carbonates only at the bedrock interface.

The Ap horizons has hue of 10YR, 2.5Y, or is neutral, values of 2 or 3, and chroma of 0 to 2. Texture is silt loam or loam in the fine-earth fraction. Structure is weak or moderate, fine or medium, granular or subangular or angular blocky. Consistence is friable or very friable. Reaction ranges from slightly acid to slightly alkaline.

The B horizons have color hues of 10YR or 2.5Y, values of 2 to 4, and chroma of 1 to 3. Texture is silt loam or loam in the fine-earth fraction. Structure is weak to strong, fine to coarse, granular, subangular, or angular blocky. Consistence is friable or firm. Reaction ranges from slightly acid to slightly alkaline.

The C horizons have a hue of 10YR, 2.5Y, or is neutral, values of 2 or 3, and chroma of 0 to 2. Texture is silt loam or loam in the fine-earth fraction. It is massive, though it may appear platy due to rock structure. Consistence is friable or firm. Reaction ranges from slightly alkaline or moderately alkaline.

Some pedons have a Cr or 2Cr horizon up to 10 inches thick that may extend below 40 inches.

The bedrock is dark calcareous shale high in carbon and weathers rapidly to silt loam when exposed.

Correlation Note (Taxadjunct): Map units 90B, 90C, and 90D are taxadjunct to the Palatine series because they fail to meet the definition of a Mollic epipedon because of the lack of contrast in color between the Ap and the underlying C horizon. The Palatine official series description typical pedon, also, fails to meet the definition of a Mollic epipedon because of the lack of contrast in color between the Ap and the underlying C horizon. Further investigation of the range in use of the Palatine series is needed to determine if reclassification of the series is appropriate. This should not significantly affect use and management on a local basis for most purposes.

Paxton Series

Soils of the Paxton series are very deep and well drained. They formed in compact glacial till deposits derived mainly from granite, schist, and gneiss. They are on the sides and tops of hills in the uplands along the Mohawk valley. Slopes range from 3 to 25 percent.

Paxton soils are in a drainage sequence with moderately well drained Woodbridge soils, somewhat poorly drained Ridgebury soils, and very poorly drained Whitman soils. Paxton soils are near Charlton and Georgia soils which do not have a dense substratum within 40 inches deep. They are also near moderately deep to bedrock Chatfield soils and shallow Hollis soils.

Typical pedon of Paxton fine sandy loam, 3 to 8 percent slopes, in Fulton County, town of Perth, in a road cut on the west side of Hoesville Road, 0.65 mile south of

Ridge Road in a wooded area; USGS Galway topographic quadrangle; WGS84; lat. 43 degrees, 01 minutes, 53.65 seconds N. and long. 74 degrees, 06 minutes, 28.04 seconds W.

Oe—0 to 1 inch; black (10YR 2/1) moderately decomposed plant material; weak fine and very fine granular structure; very friable; many very fine and fine roots; 5 percent gravel; strongly acid; abrupt smooth boundary.
Ap—1 to 6 inches; dark brown (10YR 3/3) fine sandy loam, pale brown (10YR 6/3) dry; weak fine and medium granular structure; very friable; many fine and very fine roots; 5 percent gravel; strongly acid; abrupt smooth boundary.
Bw1—6 to 15 inches; dark yellowish brown (10YR 4/6) sandy loam; weak medium subangular blocky structure; friable; common medium, fine and very fine, and few coarse roots; 5 percent gravel; strongly acid; clear smooth boundary.
Bw2—15 to 25 inches; yellowish brown (10YR 5/4) sandy loam; weak medium subangular blocky structure; friable; common medium, fine and very fine roots, and few coarse roots; 5 percent gravel; strongly acid; clear smooth boundary.
BC—25 to 31 inches; yellowish brown (10YR 5/4) sandy loam; massive; friable; common medium, fine and very fine roots, and few coarse roots; 5 percent gravel; few fine prominent brownish yellow (10YR 6/8) soft masses of iron accumulation; strongly acid; abrupt smooth boundary.
Cd—31 to 63 inches; brown (10YR 5/3) sandy loam; massive; firm; brittle in some areas; 7 percent cobbles, 6 percent gravel, 1 percent stones; moderately acid; gradual wavy boundary.
C—63 to 80 inches; brown (10YR 5/3) loam; massive; friable; 7 percent cobbles, 6 percent gravel, 1 percent stones; slightly acid.

The thickness of the solum commonly ranges from 20 to 40 inches. The depth to the densic material is commonly 20 to 40 inches. Depth to bedrock is commonly more than 6 feet. Rock fragments range from 5 to 35 percent by volume. Except where the surface is stony, the fragments are mostly subrounded gravel and typically make up 60 percent or more of the total rock fragments.

The O horizon, where present, has hue of 7.5YR or 10YR, value of 2 to 3 and chroma of 1 or 2. It is composed of slightly to highly decomposed plant material.

The Ap horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 to 4. Dry value is 6 or more. Undisturbed pedons have a thin A horizon with value of 2 or 3 and chroma of 1 or 2. The Ap or A horizon is loam, fine sandy loam or sandy loam in the fine-earth fraction. It commonly has weak or moderate granular structure and is friable or very friable. Unless the soil is limed, reaction ranges from very strongly acid to moderately acid.

Some pedons have a thin E horizon below the A horizon. It has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 to 3. Texture, structure and consistence are like the A horizon. Reaction ranges from very strongly acid to moderately acid.

The upper part of the Bw horizon has hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 4 to 8. The lower part of the Bw horizon has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 3 to 6. Some pedons have a few redoximorphic features just above the Cd horizon. The Bw horizon is loam, fine sandy loam or sandy loam with less than 65 percent silt plus very fine sand. It has weak granular or subangular blocky structure or it is massive. Consistence is friable or very friable. Reaction ranges from very strongly acid to moderately acid.

The BC horizon has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 3 to 6. It is loam, fine sandy loam or sandy loam. Reaction ranges from very strongly acid to moderately acid.

Some pedons have an E or E' horizon up to 3 inches thick below the B horizon. It has hue of 10YR to 5Y, value of 5 or 6, and chroma of 2 or 3. Typically, it is coarser textured than the overlying horizon.

The Cd layer has hue of 10YR to 5Y, value of 4 to 6, and chroma of 2 to 4. In some pedons there are a few faint or distinct iron depletions or masses of iron accumulation in the upper part. Texture is loam, fine sandy loam, sandy loam or coarse sandy loam in the fine-earth fraction. A few thin lenses of loamy sand are in some pedons. The structure is geogenetically derived, appearing in the form of weak or moderate, medium to very thick plates, or it is massive. Consistence is firm or very firm. Some pedons have a friable C horizon above the Cd horizon. Reaction ranges from very strongly acid to moderately acid.

The C horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 2 to 4. Texture is loam, fine sandy loam, sandy loam or coarse sandy loam in the fine-earth fraction. Consistence is friable or firm. Reaction ranges from very strongly acid to slightly acid.

Correlation Note: Map units 94B, 94C, and 94D have a slightly acid C horizon below the Cd, and a contrast of the accumulations in the BC that are not typical for the Paxton series. This should not significantly affect use and management on a local basis for most purposes.

Pillsbury Series

The Pillsbury series consists of very deep, somewhat poorly drained soils that formed in compact, loamy till on glaciated uplands. They are moderately deep to a densic contact and very deep to bedrock. Slopes range from 3 to 8 percent.

Pillsbury soils are associated with the well drained Henniker soils and moderately well drained Metacomet soils. In some areas, Pillsbury soils are adjacent to Skerry and Adirondack soils which have spodic material in the subsoil. They are also associated with soils similar to very poorly drained Sabattis soils which have a surface organic layer 8 to 16 inches thick.

Typical pedon of Pillsbury fine sandy loam, 3 to 8 percent slopes, in Fulton County, town of Caroga, in a road cut on the south side of Hilley Road, about 0.25 mile east of County Route 10; USGS Lasselsville topographic quadrangle; NAD83; lat. 43 degrees, 06 minutes, 34.9 seconds N. and long. 74 degrees, 30 minutes, 02.6 seconds W.

Ap—0 to 5 inches; very dark brown (10YR 2/2) fine sandy loam, grayish brown (10YR 5/2) dry; moderate fine granular structure; very friable; many fine and very fine, and common medium roots; 5 percent gravel, 5 percent cobbles; strongly acid; abrupt smooth boundary.

Bw—5 to 17 inches; brown (10YR 4/3) fine sandy loam; moderate medium and coarse subangular blocky structure; friable; many continuous very dark grayish brown (10YR 3/2) organic films on ped surfaces; common fine and very fine roots; 5 percent gravel, 5 percent cobbles; common medium distinct dark reddish brown (5YR 3/4) masses of iron accumulation and few medium faint grayish brown (10YR 5/2) areas of iron depletion on ped faces; strongly acid; clear smooth boundary.

Bg—17 to 26 inches; grayish brown (10YR 5/2) fine sandy loam; weak medium and coarse subangular blocky structure; friable; common discontinuous very dark grayish brown (10YR 3/2) organic films on ped surfaces; few fine and very fine roots; 8 percent gravel, 2 percent cobbles; common medium prominent yellowish red (5YR 4/6), common medium faint brown (10YR 5/3), and many medium distinct yellowish brown (10YR 5/4) masses of iron accumulation; strongly acid; abrupt wavy boundary.

BC—26 to 33 inches; light olive brown (2.5Y 5/3) sandy loam; massive; firm, brittle; few fine and very fine roots; 8 percent gravel, 2 percent cobbles; many medium and coarse prominent yellowish red (5YR 4/6) soft masses of iron accumulation; common medium faint light brownish gray (2.5Y 6/2) areas of iron depletion; strongly acid; clear wavy boundary.

Cd—33 to 72 inches; light grayish brown (2.5Y 5/2) sandy loam, with loamy sand lenses in greater than 25 percent of the matrix; massive with plate-like divisions; very firm, brittle; 8 percent gravel, 2 percent cobbles; common medium prominent strong brown (7.5YR 4/6) and common coarse and medium faint light olive brown (2.5Y 5/3) soft masses of iron accumulation; moderately acid.

The thickness of the solum and depth to densic materials range from 20 to 36 inches. Rock fragments of gravel, cobbles, and stones make up 5 to 45 percent of the solum and substratum. Unless limed, the soil is very strongly acid or strongly acid to a depth of 30 inches and ranges from very strongly acid to moderately acid below a depth of 30 inches.

The 0 horizon, where present, is slightly to highly decomposed plant material.

The Ap horizon has hue of 10YR to 5Y, value of 2 to 4, and chroma 1 to 3. Texture is loam, fine sandy loam, or sandy loam in the fine-earth fraction.

The A horizon, where present, has hue of 7.5YR to 5Y, value of 2 to 3, and chroma of 1 to 3. Texture is loam, fine sandy loam or sandy loam in the fine-earth fraction.

Some pedons have an E horizon that has hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 or 2. Texture is loam, fine sandy loam or sandy loam in the fine-earth fraction.

The Bw horizon has hue of 10YR to 5Y, value of 3 to 6, and chroma of 3 or 4.

The Bg horizon is neutral or has hue of 10YR to 5Y, value of 4 to 6, and chroma of 0 to 2.

The BC horizon has hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 to 4. The Bg, Bw and BC horizons are loam, fine sandy loam or sandy loam in the fine-earth fraction. Consistence is friable or firm.

The Cd horizon has hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 to 4. Texture is loam, fine sandy loam, or sandy loam in the fine-earth fraction. It is massive or has platy or coarse prismatic structure. Consistence is firm or very firm.

Pleasant Lake Series

The Pleasant Lake series consists of very deep, very poorly drained soils formed in organic materials that are greater than 51 inches thick. These soils are in depressions within outwash plains, moraines and bedrock controlled uplands. Slopes range from 0 to 2 percent.

Pleasant Lake soils are closely associated with the Burnt Vly soils which have less than 51 inches of organic deposits over mineral material. Pleasant Lake soils are associated with Humaquepts soils which consist of recent alluvial deposits. Other nearby mineral soils are the sandy Croghan, Naumburg and Searsport soils, and the coarse loamy Skerry, Adirondack and Sabattis soils.

Typical pedon of Pleasant Lake mucky peat, in a map unit of Burnt Vly-Humaquepts-Pleasant Lake complex, in Fulton County, town of Stratford, 225 feet northwest of a point that is 785 feet north along a Department of Environmental Conservation trail from a trailhead on NY Rt. 29A and 4100 feet east of East Shore Road; USGS Canada Lake topographic quadrangle; NAD83; lat. 43 degrees 10 minutes 53 seconds N. and long. 74 degrees 34 minutes 35 seconds W.

Oe—0 to 2 inches; very dark grayish brown (10YR 3/2) broken face and rubbed mucky peat; about 75 percent fibers, 40 percent rubbed; weak fine granular structure; slightly sticky; many fine and very fine roots and common medium roots; primarily sphagnum and forbs fibers; few partially decomposed woody stems; extremely acid; abrupt wavy boundary.

Oa1—2 to 5 inches; black (5YR 2.5/1) broken face, very dark gray (5YR 3/1) rubbed muck; about 25 percent fibers, 5 percent rubbed; weak fine granular structure;

slightly sticky; many fine and very fine roots; primarily woody fibers; very strongly acid; clear wavy boundary.

Oa2—5 to 44 inches; very dark gray (5YR 3/1) broken face, very dark brown (7.5YR 2.5/2) rubbed muck; about 60 percent fibers, 10 percent rubbed; massive; slightly sticky; few fine and very fine roots in the upper part; primarily woody fibers; very strongly acid; clear smooth boundary.

Oa3—44 to 78 inches; very dark grayish brown (10YR 3/2) broken face, very dark brown (7.5YR 2.5/2) rubbed muck; about 80 percent fibers, 15 percent rubbed; massive; slightly sticky; primarily woody fibers; strongly acid; clear smooth boundary.

Oa4—78 to 86 inches; brown (10YR 4/3) broken face, very dark grayish brown (10YR 3/2) rubbed muck; about 30 percent fibers, 5 percent rubbed; massive; non-sticky; primarily woody fibers; strongly acid.

The combined thickness of the organic layers exceeds 51 inches. Layers within the control section have a hue of 2.5YR to 2.5Y, value of 2 to 5, and chroma of 0 to 4. Colors commonly become darker on brief exposure to air. Reaction throughout the control section ranges from extremely acid to very strongly acid in water (pH less than 4.5 in 0.01M calcium chloride).

The layers in the surface tier consist dominantly of hemic materials, but in some pedons they are composed of fibric or sapric material. Fibric layers are derived from herbaceous plants and sphagnum moss. Structure in the surface tier is platy or granular, or it is massive.

The subsurface and bottom tiers have platy structure or are massive.

Correlation Note: The Pleasant Lake series is established by this correlation.

Potsdam Series

The Potsdam series consists of very deep, well drained soils on glacial till plains. These soils formed in an eolian or water deposited mantle that overlies dense till. Slopes range from 3 to 35 percent.

Potsdam soils are in a drainage sequence with the moderately well drained Crary soils and the somewhat poorly drained Adirondack soils. Other associated soils include Becket, Adams, Colton, Lyman, Monadnock, Sabattis and Tunbridge soils. Potsdam soils have more silt plus very fine sand in surface and subsoil compared to Becket soils. Potsdam soils have a dense substratum which is not present in Adams, Colton, Monadnock and Sabattis soils. Also, Potsdam soils lack redoximorphic features in the upper solum which is present in Sabattis soils. Potsdam soils are very deep to bedrock in comparison to shallow Lyman soils and moderately deep Tunbridge soils.

Typical pedon of Potsdam loam, in a map unit of Crary-Potsdam complex, 3 to 15 percent slopes, very bouldery, in Hamilton County, town of Morehouse, 1,000 feet southeast of Four Mile Brook on French Road, and about 50 feet west into a pine plantation; USGS Ohio 15 minute topographic quadrangle; NAD27; lat. 43 degrees 22 minutes 39 seconds N. and long. 74 degrees 45 minutes 33 seconds W.

Oi —0 to 2 inches; black (10YR 2/1) slightly decomposed organic matter.

A—2 to 8 inches; dark reddish brown (5YR 3/2) loam; weak fine granular structure; very friable; many fine and medium roots; common fine pores; very strongly acid; abrupt smooth boundary.

E—8 to 10 inches; reddish gray (5YR 5/2) fine sandy loam; weak fine granular structure; very friable; many fine roots; many fine pores; very strongly acid; abrupt wavy boundary.

Bh—10 to 13 inches; black (5YR 2.5/1) loam with few clean white sand grains; weak medium subangular blocky structure; friable; common fine and medium roots; 5 percent rock fragments; very strongly acid; clear wavy boundary.

Bhs—13 to 19 inches; dark brown (7.5YR 3/3) loam; moderate medium subangular blocky structure; friable; common fine, medium and coarse roots; 5 percent rock fragments; strongly acid; gradual wavy boundary.

Bs—19 to 25 inches; dark yellowish brown (10YR 3/4) loam; moderate medium subangular blocky structure; friable; few fine and medium roots; 5 percent rock fragments strongly acid; clear wavy boundary.

2BC—25 to 28 inches; dark brown (10YR 3/3) sandy loam; weak medium platy structure parting to moderate medium subangular blocky; friable; few fine roots; 10 percent rock fragments; strongly acid; gradual wavy boundary

2Cd—28 to 72 inches; dark brown to brown (10YR 3/3—4/3) sandy loam; strong thick plate-like divisions; extremely firm in place, very firm removed; very few roots between plates in upper part of the horizon; common fine pores; 10 percent rock fragments; strongly acid.

The thickness of the solum ranges from 20 to 40 inches. Depth to bedrock is more than 60 inches. Thickness of the eolian mantle ranges from 20 to 40 inches over the dense glacial till substratum. Rock fragments range from 0 to 15 percent, by volume, in the eolian mantle and from 10 to 35 percent in the lower part of the subsoil and substratum. Rock fragments include gravel, cobbles and stones. Stones occupy as much as 15 percent of some layers. The eolian mantle contains 50 to 80 percent silt plus very fine sand.

The O horizon has hue of 10YR to 5YR, value of 2 to 3, and chroma of 1 or 2. Some undisturbed pedons have an A horizon with hue of 10YR to 5YR, value of 2 to 3, and chroma of 1 or 2. Reaction ranges from extremely acid to moderately acid.

The Ap horizon, if present, has hue of 5YR to 1OYR, value of 2 to 4, and chroma of 1 to 3. Texture is very fine sandy loam, loam, or silt loam in the fine-earth fraction. Reaction ranges from extremely acid to moderately acid. The E horizon has hue of 5YR to 10YR, value of 5 to 7 and chroma of 1 or 2. Texture is fine sandy loam, very fine sandy loam, loam or silt loam in the fine-earth fraction. Reaction ranges from extremely acid to moderately acid.

The Bh horizon has hue of 5YR or 7.5YR, value of 2 to 3, and chroma of 1 or 2. Texture is very fine sandy loam, loam, or silt loam in the fine-earth fraction. Reaction ranges from very strongly acid to moderately acid.

The Bhs horizon has hue of 5YR or 7.5YR, value and chroma of 3 or less. Texture is very fine sandy loam, loam, or silt loam in the fine-earth fraction. Reaction ranges from very strongly acid to moderately acid.

The Bs horizon has hue of 5YR to 10YR, value of 4 to 6, and chroma of 4 to 8. The lighter colors are more common in the lower part. Texture is very fine sandy loam, loam, or silt loam with subhorizons of loamy very fine sand in some pedons. Reaction ranges from very strongly acid to moderately acid. Some pedons have a BC or C horizon under the Bs horizon.

The 2BC horizon has hue of 7.5YR to 2.5Y, value 3 to 5, and chroma of 2 to 4. Texture is sandy loam or fine sandy loam in the fine-earth fraction. Reaction ranges from very strongly acid to neutral.

The 2Cd horizon has hue of 1OYR to 5Y, value of 3 to 5, and chroma of 2 to 4. Texture is sandy loam or fine sandy loam in the fine-earth fraction. Some pedons have loamy sand or gravelly loamy sand textures below 40 inches. Reaction ranges from strongly acid to slightly alkaline.

Rawsonville Series

Soils of the Rawsonville series are moderately deep and well drained. They formed in loamy till on summits, shoulders and backslopes of mountains and ridges in the Adirondack Mountains. Slopes range from 3 to 60 percent.

Rawsonville soils are near shallow Hogback soils, the very deep Mundalite soils and the mainly organic, very shallow and shallow Knob Lock soils.

Typical pedon of Rawsonville fine sandy loam, in a map unit of Mundalite-Rawsonville–Ampersand complex, 3 to 15 percent slopes, rocky, very bouldery, in Herkimer County, town of Salisbury, near North Branch Lake; NAD27; USGS Ohio 15 minute topographic quadrangle; lat. 43 degrees 18 minutes 45 seconds N. and long. 74 degrees 47 minutes 40 seconds W.

Oi—0 to 4 inches; dusky red to red (2.5YR 3/2—4/6) slightly decomposed plant material; (unrubbed 95 percent fibers, rubbed 80 percent fibers); 2 percent gravel; 1 percent cobbles.

Oa—4 to 7 inches; black (5YR 2.5/1) highly decomposed plant material; (unrubbed 20 percent fibers, rubbed 5 percent fibers); moderate very fine granular structure; very friable; many fine and medium roots; 2 percent gravel, 1 percent cobbles; extremely acid; abrupt wavy boundary.

E—7 to 9 inches; reddish gray (5YR 5/2) fine sandy loam; weak very fine subangular blocky structure; friable; few fine and medium roots; 2 percent gravel, 1 percent cobbles; extremely acid; abrupt broken boundary.

Bh1—9 to 10 inches; black (N 2.5/0) fine sandy loam; weak coarse granular structure; very friable; strongly smeary; many fine and common medium roots; 2 percent gravel, 1 percent cobbles; very strongly acid; abrupt irregular boundary.

Bh2—10 to 15 inches; dusky red (2.5YR 3/2) fine sandy loam; weak very fine subangular blocky structure; very friable; moderately smeary; many fine and medium roots; 10 percent rock fragments; 5 percent greater than 3 inches; very strongly acid; gradual smooth boundary.

Bhs—15 to 26 inches; dark reddish brown (5YR 3/2) fine sandy loam; weak fine and medium subangular blocky structure; friable; weakly smeary; many fine and medium roots; 10 percent rock fragments; very strongly acid; abrupt smooth boundary.

C—26 to 27 inches; grayish brown (10YR 5/2) gravelly fine sandy loam; massive; friable; 15 percent rock fragments; very strongly acid; abrupt smooth boundary.

R—27 inches; granitic bedrock.

The thickness of the solum and depth to bedrock range from 20 to 40 inches. Reaction ranges from extremely acid to strongly acid throughout the mineral soil. Rock fragments are mostly gravel, cobbles, or channers and range from 0 to 20 percent in the upper part of the solum and 5 to 30 percent in the lower part of the solum.

Some pedons have an A horizon that is neutral or has hue of 5YR to 10YR, value of 2 to 3, and chroma of 0 to 2. Texture is fine sandy loam, very fine sandy loam, silt loam or loam in the fine-earth fraction.

The E horizon has hue of 5YR to 5Y, value of 3 to 6, and chroma of 1 to 3. Texture is sandy loam, fine sandy loam, very fine sandy loam, loam, or silt loam in the fine-earth fraction.

The Bh horizon is neutral with value of 2 or less or has hue of 10YR, value of 3 and chroma of 1.

The Bhs horizon has hue of 2.5YR to 7.5YR with value and chroma of 3 or less.

Some pedons have a Bs horizon with hue of 5YR to 10YR, value of 3 or more, and chroma of 4 or more.

The Bhs, Bs, and Bh horizons are sandy loam, fine sandy loam, very fine sandy loam, silt loam, or loam in the fine-earth fraction. They are moderately or weakly smeary.

The BC horizon, where present, has hue of 7.5YR to 5Y value of 3 to 5, and chroma of 2 to 4. Texture is sandy loam, fine sandy loam or very fine sandy loam in the fine-earth fraction.

The C horizon has hue of 10YR to 5Y, value of 3 to 5, and chroma of 2 to 4. Texture is sandy loam, fine sandy loam or very fine sandy loam in the fine-earth fraction.

Bedrock is slightly weathered schist, gneiss, phyllite, granite or anorthisite.

Correlation Note: The Rawsonville series is using the Hamilton County typical pedon. The typical pedon in the taxonomic unit description was within range of the Rawsonville official series description's range in characteristics at the time of the Hamilton County correlation. The color of the Bh2 horizon is slightly beyond what is now permitted. This should not affect use and management on a local basis for most purposes.

Rhinebeck Series

Soils of the Rhinebeck series are very deep and somewhat poorly drained. They formed in water deposited material high in clay and silt on glacial lake plains. Slopes range from 0 to 8 percent.

Rhinebeck soils are in a drainage sequence with moderately well drained Hudson soils, poorly drained Madalin soils and very poorly drained Fonda soils. They are near Unadilla, Scio, and Tonawanda soils which have less clay in the solum. Rhinebeck soils are also associated with Elmridge and Aeric Epiaquepts soils which have coarser material overlying the clayey substratum. Rhinebeck soils are associated with loamy Appleton and Mosherville soils which formed in till.

Typical pedon of Rhinebeck silty clay loam, 0 to 3 percent slopes, in Fulton County, town of Oppenheim, 0.9 mile east of intersection of Youkers Bush Road with Kringsbush Road and about 100 feet south of Youkers Bush Road; USGS Lasselsville topographic quadrangle; NAD83; lat. 43 degrees, 01 minutes, 14.5 seconds N. and long. 74 degrees, 36 minutes, 43.9 seconds W.

Ap—0 to 9 inches, dark grayish brown (10YR 4/2) silty clay loam, light brownish gray(10YR 6/2) dry; moderate fine subangular blocky structure parting to moderate fine granular; friable; many very fine roots; 1 percent gravel; slightly acid; abrupt smooth boundary.

BE—9 to 13 inches, brown (10YR 5/3) silty clay loam; moderate fine and medium subangular blocky structure; friable; common discontinuous clay films on ped surfaces and in pores; common very fine roots; few very fine and fine tubular pores; trace amounts of rock fragments; many medium and fine distinct dark yellowish brown (10YR 4/6) soft masses of iron accumulation; many medium faint grayish brown (10YR 5/2) iron depletions; slightly acid; clear wavy boundary.

Btg—13 to 27 inches, grayish brown (10YR 5/2) silty clay; moderate coarse prismatic structure parting to weak fine and medium subangular blocky; firm; gray (2.5Y 5/1) prism faces with yellowish brown (10YR 5/6) rinds; common discontinuous distinct clay films on ped faces; common very fine roots along prism faces and few very fine roots in the matrix; few very fine pores; 1 percent gravel; many medium and fine prominent yellowish brown (10YR 5/6) soft masses of iron accumulation in matrix, and few fine faint gray (2.5Y 5/1) iron depletions along root channels; neutral; clear smooth boundary.

C1—27 to 34 inches, mixed 60 percent dark gray (2.5Y 4/1) silty clay loam, and olive brown (2.5Y 4/3) silt loam in moderate very thick varves; firm; few very fine roots between varves; few very fine and fine tubular pores; trace amount of

rock fragments; few coarse distinct gray (N 5/0) iron depletions; gray (2.5Y 6/1) secondary carbonate deposits; moderately alkaline, violently effervescent; clear smooth boundary.

C2—34 to 37 inches, olive brown (2.5Y 4/3) silt loam; massive with weak thick plate-like divisions inherent from varves; firm; few very fine tubular pores; 5 percent rock fragments; few fine distinct light olive brown (2.5Y 5/6) soft masses of iron accumulation and few fine faint grayish brown (2.5Y 5/2) iron depletions; moderately alkaline, violently effervescent; clear wavy boundary.

C3—37 to 72 inches, mixed 60 percent olive brown (2.5Y 4/3) silt loam, and gray (10YR 5/1) silty clay loam in moderate very thick varves; firm; few very fine tubular pores; 5 percent rock fragments; common medium and fine prominent yellowish brown (10YR 5/6) soft masses of iron accumulation and many medium faint grayish brown (2.5Y 5/2) iron depletions; moderately alkaline, violently effervescent.

The thickness of the solum ranges from 20 to 40 inches. Depth to carbonates ranges from 20 to 72 inches. Depth to bedrock is greater than 60 inches. Rock fragments range from 0 to 15 percent by volume in the surface layer, and from 0 to 10 percent in the subsoil and substratum. Reaction ranges from strongly acid to neutral in the A and E horizons, strongly acid to slightly alkaline in the B horizon, and slightly acid to moderately alkaline in the C and 2C horizons.

Ap or A horizon has hue of 7.5YR to 2.5Y, value of 2 to 4, and chroma of 1 to 3. Texture of the fine-earth fraction is silt loam, loam, or silty clay loam. Some pedons are gravelly. Structure is granular or subangular blocky. Consistence is very friable or friable.

The E horizon, when present, has hue of 7.5YR to 5Y, value of 4 to 6, chroma of 1 to 3 and has redoximorphic features. Texture of the fine-earth fraction is silt loam, very fine sandy loam, or silty clay loam. Structure is weak or moderate subangular blocky or it is platy. Consistence ranges from very friable to firm.

The BE horizons has hue of 7.5YR to 5Y, value of 4 to 6, and chroma 3 to 6. It has redoximorphic features. Texture of the fine-earth fraction is silt loam, silty clay loam or silty clay. Consistence is friable or firm.

The Bt or Btg horizons have hue of 7.5YR to 5Y or are neutral, value of 3 to 5, chroma of 1 to 4, and have redoximorphic features. Texture of the fine-earth fraction is silty clay loam or silty clay, with subhorizons of silt loam or clay in some pedons. Structure is weak to strong, prismatic, subangular blocky or angular blocky. Consistence is firm or very firm.

Some pedons have BC horizons that underlie B horizons. They have similar color, texture, and structure to the B horizons, except some pedons have plate-like divisions inherited from the lacustrine parent material. BC horizons can be calcareous or noncalcareous. Consistence is firm or very firm.

The C and 2C horizons have hue of 5YR to 5Y, or are neutral, with value of 3 to 5, and chroma of 0 to 4. Texture of the fine-earth fraction is silt loam, silty clay loam, silty clay or clay with subhorizons, usually discontinuous, ranging to fine sand. They are massive, varved or have very coarse prismatic structure in the upper part. Free carbonates are absent above a depth of 72 inches in some pedons.

Ridgebury Series

Soils of the Ridgebury series are very deep and somewhat poorly drained. They formed in compact glacial till deposits derived mainly from granite, schist, and gneiss on uplands. They are typically moderately deep to densic contact. Slopes range from 0 to 8 percent.

Ridgebury soils are in a drainage sequence with well drained Paxton soils, moderately well drained Woodbridge soils, and very poorly drained Whitman soils. Ridgebury soils are near Charlton soils which do not have a dense substratum. Ridgebury soils are very deep to bedrock in comparison to moderately deep to bedrock Chatfield soils and shallow Hollis soils.

Typical pedon of Ridgebury loam, 0 to 8 percent slopes, in Fulton County, town of Broadalbin, 230 feet northwest of Chase Vly Road, at a point 0.1 mile south of intersection with Mueller Road; USGS Broadalbin topographic quadrangle; NAD83; lat. 43 degrees, 03 minutes, 34.5 seconds N. and long. 74 degrees, 08 minutes, 02.4 seconds W.

Oa—0 to 1 inch, black (7.5YR 2.5/1) highly decomposed plant material; massive; very friable; many very fine roots; very strongly acid; abrupt smooth boundary.

Ap—1 to 7 inches; dark brown (10YR 3/3) loam; pale brown (10YR 6/3) dry; weak medium subangular structure parting to weak medium and fine granular; very friable; many very fine and fine, and common medium and coarse roots; 5 percent gravel; very strongly acid; abrupt smooth boundary.

Bw1—7 to 13 inches; dark yellowish brown (10YR 4/4) loam; weak coarse and medium subangular blocky structure; friable; common fine and very fine, and few medium roots; 7 percent gravel; common medium distinct very dark grayish brown (10YR 3/2) krotovinas; strongly acid; clear smooth boundary.

Bw2—13 to 21 inches; brown (10YR 5/3) fine sandy loam; weak coarse subangular blocky structure; friable,(firm in place); common fine and very fine roots; discontinuous faint grayish brown (10YR 5/2) ped faces; 10 percent gravel; many medium and fine distinct yellowish brown (10YR 5/6) and common medium prominent strong brown (7.5YR 4/6) soft masses of iron accumulation; common medium faint grayish brown (2.5Y 5/2) areas of iron depletion; strongly acid; clear smooth boundary.

Cd—21 to 28 inches; light olive brown (2.5Y 5/3) gravelly fine sandy loam; massive with weak very thick plate-like divisions; very firm, brittle; 12 percent gravel, 5 percent cobbles; common fine and medium prominent dark yellowish brown (10YR 4/6) soft masses of iron accumulation; few fine faint grayish brown (2.5Y 5/2) areas of iron depletion; strongly acid; clear smooth boundary.

C—28 to 60 inches; light olive brown (2.5Y 5/3) loam, with common thick discontinuous gray (5Y6/1) silt strata (mostly between 45 and 55 inch depth); massive; firm; 10 percent gravel, 1 percent cobbles; many fine and medium prominent yellowish brown (10YR 5/6) soft masses of iron accumulation; common medium distinct gray (5Y 5/1) areas of iron depletion; moderately acid.

The thickness of the solum ranges from 20 to 36 inches and commonly corresponds to the depth to the dense substratum. Depth to bedrock is greater than 60 inches. Rock fragments range from 5 to 35 percent throughout the mineral soil, comprised of gravel, cobbles and/or stones. Reaction ranges from very strongly acid to moderately acid throughout the soil.

The O horizon, where present, is neutral or has hue of 7.5YR to 2.5Y, value of 2 to 3, and chroma of 0 to 2.

The A or Ap horizon is neutral or has hue of 10YR to 5Y, value of 2 to 3 and chroma of 0 to 2. Texture is sandy loam, fine sandy loam or loam in the fine- earth fraction.

Some pedons have an E horizon.

The B horizon has hue of 7.5YR to 5Y, value of 4 to 6, and chroma of 0 to 4. Redoximorphic features are present. Texture is sandy loam, fine sandy loam, very fine sandy loam or loam in the fine-earth fraction. The horizon has subangular blocky or weak to moderate platy structure, or it is massive. Consistence is friable or very friable.

The Cd horizon has hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 to 4. Redoximorphic features are present. Texture is coarse sandy loam through loam in the

fine earth fraction. The horizon is massive or has plate-like divisions. Consistence is firm or very firm and brittle.

The C horizon has hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 to 4. Texture is coarse sandy loam through loam in the fine-earth fraction. It is firm or very firm.

Correlation Note (Taxadjunct): Map unit 96B is a Taxadjunct to the Ridgebury series because the depth to the Cd is slightly too deep to make the shallow family. This should not significantly affect use and management on a local basis for most purposes.

Rumney Series

Rumney soils consist of very deep, poorly drained soils that formed in recent alluvium. They are on flood plains along large streams. Slopes range from 0 to 3 percent.

Rumney soils are commonly mapped near Colton, Burnt Vly, Pleasant Lake and Wonsqueak soils. Rumney soils are not as gravelly as the Colton soils. Rumney soils are not formed in thick organic material like Burnt Vly, Pleasant Lake, and Wonsqueak soils.

Typical pedon of Rumney silt loam, in a unit of Ondawa-Rumney complex, in Hamilton County, town of Wells, about 600 feet south of the old NY Route 30 bridge just north of Auger Flats, and about 400 feet east of NY Route 30; USGS Lake Pleasant 15 minute quadrangle; NAD27; lat. 43 degrees, 29 minutes, 8 seconds N. and long. 74 degrees, 16 minutes, 6 seconds W.

A—0 to 8 inches; very dark brown (10YR 2/2) silt loam; light brownish gray (10YR 6/2) dry; strong very fine and fine granular structure; very friable; many fine and few medium roots; moderately acid; abrupt smooth boundary.

AB—8 to 12 inches; dark brown (10YR 3/3) silt loam; strong fine and medium subangular blocky structure; very friable; many fine and common medium roots; few medium faint dark grayish brown (10YR 4/2) soft masses of iron accumulation; moderately acid; abrupt smooth boundary.

Bg—12 to 16 inches; dark grayish brown (10YR 4/2) very fine sandy loam; moderate medium subangular blocky structure; very friable; many fine and few medium roots; many medium faint brown (10YR 4/3) to distinct dark yellowish brown (10YR 4/4) and many fine and medium faint brown (7.5YR 4/3) soft masses of iron accumulation; moderately acid; clear smooth boundary.

Bw—16 to 34 inches; brown (10YR 5/3) loam; weak medium and moderate coarse subangular blocky structure; friable; few fine roots; many fine and medium, and few coarse pores; many medium faint brown (7.5YR 4/3) soft masses of iron accumulation; common fine faint grayish brown (10YR 5/2) iron depletions; moderately acid; abrupt smooth boundary.

Cg1—34 to 39 inches; grayish brown (2.5Y 5/2) loam; massive; very friable; few fine distinct olive brown (2.5Y 4/4) soft masses of iron accumulation; moderately acid; abrupt smooth boundary.

Cg2—39 to 72 inches; dark gray (10YR 4/1) loamy sand; single grain; loose; moderately acid.

The thickness of the solum and depth to the coarse textured substratum range from 20 to 40 inches. Depth to bedrock is more than 60 inches. Gravel content ranges from 0 to 15 percent by volume in the solum and from 0 to 40 percent in the substratum. Reaction ranges from very strongly acid to neutral throughout, but some subhorizon within 40 inches of the mineral soil surface is moderately acid to neutral. Some pedons are slightly alkaline below 40 inches. Some pedons have buried horizons.

The Ap, where present, has hue of 10YR or 2.5Y, value of 2 to 4, and chroma of 1 to 3. Dry value is 6 or more. Texture is sandy loam, fine sandy loam, very fine sandy loam, loam or silt loam. It has granular structure and is very friable or friable. It can have blocky structure.

The A and AB horizons have hue of 10YR or 2.5Y, value of 2 to 4, and chroma of 1 to 3. Texture is sandy loam, fine sandy loam, very fine sandy loam, loam, or silt loam.

The B horizon has hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 to 4. At least one subhorizon within 20 inches of the mineral soil surface has hue of 10YR or 2.5Y, with value of 3 to 5, and chroma of 2. It has common or many, fine to coarse, faint to prominent redoximorphic features. Texture is sandy loam, fine sandy loam, or loam. Some pedons have thin subhorizons of very fine sandy loam in the upper part of the B horizon. It has weak or moderate, very fine to coarse subangular blocky or very fine to medium granular structure. It is very friable or friable.

The C horizon has hue of 7.5YR to 5Y, value of 3 to 6, and chroma of 1 to 4. The texture of individual layers ranges from loamy fine sand to coarse sand in the fine-earth fraction. Included in some pedons are loamy and/or extremely gravelly strata. The thickness and number of subhorizons is variable and corresponds to the thickness and variability of the alluvial deposits. The C horizon is single grain and loose in the sandy part. The loamy part is typically massive and very friable or friable.

Correlation Note: The typical pedon used for correlation in Fulton County in Map Unit 25A is from Hamilton County as its typical pedon. The strong grade of granular structure in the A and AB horizons is outside the range in characteristics for the Rumney series. This should not significantly affect use and management on a local basis for most purposes.

Sabattis Series

The Sabattis series consists of very deep, very poorly drained soils that formed in loamy glacial till on uplands. Slopes range from 0 to 6 percent.

Sabattis soils are associated with very deep, well drained Becket, Potsdam, and Monadnock soils, moderately well drained Skerry and Crary soils, somewhat poorly drained Adirondack soils and very poorly drained Tughill soils. All of these associated soils lack an 8 to 16 inch thick organic surface layer that is present in Sabattis soils.

Typical pedon of Sabattis muck, in a unit of Adirondack-Sabattis-Tughill complex, 0 to 8 percent slopes, very bouldery, in Hamilton County, town of Indian Lake, about 500 feet northwest of the intersection of the Northville-Lake Placid hiking trail and Cedar River Road; USGS Blue Mountain 15 minute topographic quadrangle; NAD27; lat. 43 degrees 47 minutes 30 seconds N. and long. 74 degrees 24 minutes 20 seconds W.

Oa —0 to 8 inches; black (10YR 2/1) muck; 5 percent fibers, less than 1 percent rubbed; weak medium subangular blocky structure parting to weak fine granular; very friable; many fine roots, and few medium and coarse roots; slightly acid; clear smooth boundary.

AB —8 to 11 inches; dark grayish brown (10YR 4/2) and brown (10YR 4/3) loam; weak medium subangular blocky structure; friable; common fine roots; 10 percent rock fragments; slightly acid; clear wavy boundary.

Bg—11 to 21 inches; light brownish gray (2.5Y 6/2) fine sandy loam; weak medium and coarse subangular blocky structure; friable; few fine roots; common fine and few medium pores; 5 percent rock fragments; many medium and fine faint olive brown (2.5Y 4/3) and few fine faint light yellowish brown (2.5Y 6/3) soft masses of iron accumulation; slightly acid; gradual wavy boundary.

C1—21 to 31 inches; brownish yellow (10YR 6/6) sandy loam; massive; friable, slightly firm in place; few fine pores; 5 percent rock fragments; many fine faint light yellowish brown (10YR 6/4) soft masses of iron accumulation and few coarse

prominent light brownish gray (10YR 6/2) areas of iron depletion; slightly acid; gradual wavy boundary.
2C2—31 to 37 inches; grayish brown (2.5Y 5/2) and yellowish brown (10YR 5/8) very fine sandy loam with lenses of silt and very fine sand; massive; slightly firm in place; 5 percent rock fragments; common fine distinct light yellowish brown (10YR 6/4) soft masses of iron accumulation; slightly acid; clear wavy boundary.
2C3—37 to 72 inches; brown (10YR 5/3) gravelly sandy loam; massive; very friable; 25 percent rock fragments; few medium distinct yellowish brown (10YR 5/6) soft masses of iron accumulation; slightly acid.

The thickness of the solum ranges from 10 to 38 inches. Depth to bedrock is greater than 60 inches. Redoximorphic features consisting of iron depletions or reduced matrices occur within 20 inches of the mineral soil surface. Rock fragments, mainly gravel, cobbles and stones, range from 2 to 45 percent by volume in the mineral subsurface layer and subsoil, and from 5 to 45 percent in the substratum. Large stones and boulders commonly occupy 0.1 to 15 percent of the soil surface.

The O horizon is neutral or has hue of 5YR to 10YR, value of 2 or 3, and chroma of 0 to 2. The material is muck, mucky peat or peat. Reaction ranges from very strongly acid to slightly acid.

The AB or A horizon is neutral or has hue of 5YR to 2.5Y, value of 2 to 4, and chroma of 0 to 3. Texture of the fine-earth fraction is sandy loam, fine sandy loam, very fine sandy loam, loam, or silt loam with mucky, gravelly or cobbly analogs in some pedons. Reaction ranges from very strongly acid to neutral.

The B horizon is neutral in color or has hue of 7.5YR to 5Y, value of 4 to 6, and chroma of 0 to 3. It has faint or distinct redoximorphic depletions or concentrations. Texture is sandy loam, fine sandy loam, very fine sandy loam, loam, or silt loam in the fine-earth fraction. Lenses or thin subhorizons of loamy sand, loamy fine sand or silt are in some pedons. Structure is granular or subangular blocky. Reaction ranges from strongly acid to neutral.

The C and 2C horizons if present, have hue of 7.5YR to 5Y, value of 3 to 6, and chroma of 1 to 6. They have faint to prominent redoximorphic depletions or concentrations. Texture of the fine-earth fraction is sandy loam, fine sandy loam, or loam. Where fluvial sorting has influenced the substratum, thin layers or lenses of loamy sand, loamy fine sand, very fine sand, or silt are common. Those pedons having 2C and 3C horizons commonly formed as a result of fluvial action or past colluvial deposition. Structure is absent or the horizons are platy. Consistence ranges from loose to friable, but some pedons have firm subhorizons. Reaction ranges from strongly acid to slightly alkaline.

Saprists

Saprists consist of very deep, very poorly drained soils composed of a thick layer of highly decomposed plant material overlying deposits of lacustrine, glacial outwash or till. They have shallow water on the surface all year under normal conditions. These soils are on low-lying positions of landscapes or in depressions adjacent to bodies of water. Slopes are less than one percent.

Saprists are mapped with Aquents which are comprised of only a thin organic surface overlying mineral deposits. Saprists are commonly near Catden, Timakwa, Scarboro, Cheektowaga, Illion, and Fonda soils on the landscape. Saprists and Aquents are ponded with water throughout the year compared to these associated soils which are either inundated for shorter periods or are not ponded at all.

Saprists are highly variable; therefore, a typical pedon is not provided. Saprists consist of organic material more than 16 inches thick over mineral soil deposits. Bedrock is generally at a depth of more than 60 inches. Rock fragments are generally

absent in the organic part, and range from 0 to 65 percent in the underlying mineral portion.

The organic soil layers have hue of 10YR to 5Y or are neutral, value of 2 to 3, and chroma of 0 to 2. It is dominantly sapric material, but individual layers contain variable amounts of hemic or fibric material. Reaction ranges from very strongly acid to neutral.

The underlying mineral substratum has hue of 10YR to 5Y or is neutral), value of 3 to 5, and chroma of 0 to 2. Texture ranges from sand to silty clay in the fine-earth fraction. Reaction is very strongly acid to moderately alkaline.

Scarboro Series

Soils of the Scarboro series are very deep and very poorly drained. They formed in water-sorted sand in depressions on glacial outwash plains and terraces. Slopes range from 0 to 3 percent.

Scarboro soils are associated with excessively drained Windsor soils, moderately well drained Ninigret soils and somewhat poorly drained Stafford soils which lack a mucky surface. They are also near somewhat poorly drained Fredon soils, which have a loamy subsoil.

Typical pedon of Scarboro mucky loamy sand, 0 to 3 percent slopes, in Fulton County, town of Johnstown, about 0.34 mile southwest of Route 920J and 400 feet south-southeast of NY Route 30A; USGS Gloversville topographic quadrangle; NAD83; lat. 43 degrees, 02 minutes, 23.3 seconds N. and long. 74 degrees, 19 minutes, 53.1 seconds W.

Oa—0 to 8 inches, black (10YR 2/1) muck; weak coarse subangular blocky structure parting to weak medium granular; very friable; few coarse and medium, and common fine and very fine roots; trace amounts of gravel; strongly acid; abrupt wavy boundary.

C1—8 to 11 inches, grayish brown (2.5Y 5/2) loamy sand; massive; friable; few coarse yellowish brown (10YR 5/6) mineral stains; few very fine roots; 2 percent gravel, 1 percent cobbles; common medium and fine prominent light olive brown (2.5Y 5/6) soft masses of iron accumulation; moderately acid; clear wavy boundary.

C2—11 to 24 inches, light olive brown (2.5Y 5/3) sand; massive; friable; few fine black (2.5Y 2/1) manganese stains; 1 percent gravel; common medium prominent yellowish brown (10YR 5/6) soft masses of iron accumulation; common coarse faint grayish brown (2.5Y 5/2) iron depletions; moderately acid; gradual wavy boundary.

C3—24 to 45 inches, grayish brown (2.5Y 5/2) sand; single grain; loose; common fine prominent strong brown (7.5YR 4/6) soft masses of iron accumulation; neutral; gradual wavy boundary.

C4—45 to 64+ inches, grayish brown (2.5Y 5/2) fine sand; single grain; loose; trace amounts of gravel; slightly alkaline, very slightly effervescent.

Gravel ranges from 0 to 10 percent to a depth of 30 inches, and 0 to 50 percent below. Reaction ranges from very strongly acid to moderately acid in the A horizon and upper C horizon, and from very strongly acid to moderately alkaline in the lower part of the C.

The O horizon is commonly mucky peat or muck, but the range includes thin layers of peat at the surface.

The A horizon, where present, is neutral or has hue of 5YR to 2.5Y, value of 2 to 3, and chroma of 0 to 2. Texture is fine sandy loam, sandy loam, loamy fine sand, loamy sand, sand or their mucky analogue.

The upper part of the C horizon is neutral or has hue of 10YR to 5Y, value of 4 to 7, and chroma of 0 to 2. Some pedons have few or common fine to coarse redoximorphic

features. Texture is fine sandy loam, sandy loam, loamy fine sand, loamy sand, fine sand, or sand.

The lower part of the C horizon is neutral or has hue of 10YR to 5Y or 5GY, value of 3 to 6, and chroma of 0 to 4. Redoximorphic features range from none to many and are fine to coarse. Texture is loamy fine sand, loamy sand, fine sand, sand, loamy coarse sand, or coarse sand. The C horizon is structureless and loose, very friable or friable. It is commonly stratified.

Correlation Note: Map Unit 179A has reaction in the substratum that is slightly out of the range of the Scarboro series. This should not significantly affect use and management on a local basis for most purposes.

Scio Series

Soils of the Scio series are very deep and moderately well drained. They formed in deposits that are high in silt and very fine sand on lacustrine mantled uplands. Slopes range from 0 to 8 percent.

Scio soils are in a drainage sequence with well drained Unadilla soils, somewhat poorly drained Tonawanda soils and very poorly drained Birdsall soils. They are associated with Hudson, Rhinebeck and Madalin soils which formed in clayey sediments. Scio soils are also near Elmridge soils which formed in loamy over clayey deposits, and Windsor soils which formed in sandy outwash deposits.

Typical pedon of Scio silt loam, 3 to 8 percent slopes, in Fulton County, town of Johnstown, about 750 feet northeast on County Route 122 from intersection with NY Route 29A, and 200 feet southeast of County Route 122 in a field; USGS Peck Lake topographic quadrangle; NAD83; lat. 43 degrees, 03 minutes, 30.0 seconds N. and long. 74 degrees, 22 minutes, 46.2 seconds W.

Ap—0 to 9 inches, dark brown (10YR 3/3) silt loam, pale brown (10YR 6/3) dry; moderate medium and fine granular structure; very friable; many very fine roots; trace amount of gravel; strongly acid; abrupt smooth boundary.

Bw1—9 to 18 inches, yellowish brown (10YR 5/6) silt loam; weak medium subangular blocky structure; very friable; many very fine roots; common medium tubular pores; trace amount of gravel; strongly acid; gradual wavy boundary.

Bw2—18 to 30 inches, light olive brown (2.5Y 5/3) silt loam; weak medium subangular blocky structure; very friable; common very fine roots; common fine distinct brown (7.5YR 4/4), common medium prominent dark yellowish brown (10YR 4/6) soft masses of iron accumulation in root channels and in pores; common fine and medium faint grayish brown (2.5Y 5/2) iron depletions; strongly acid; clear wavy boundary.

C1—30 to 37 inches, grayish brown (2.5Y 5/2) silt loam; massive; firm in place, friable in hand; few very fine roots; many fine distinct yellowish brown (10YR 5/6) soft masses of iron accumulation in root channels, many medium fine brown (10YR 5/3) and yellowish brown (10YR 5/4) soft masses of iron accumulation in the matrix; strongly acid; clear smooth boundary.

C2—37 to 52 inches, varved grayish brown (2.5Y 5/2) and very dark grayish brown (2.5Y 3/2) silt loam; strong thin to thick varves; firm in place, friable in hand; strongly acid; clear smooth boundary.

C3—52 to 80 inches, varved light olive brown (2.5Y 5/3) and dark yellowish brown (10YR 4/6) silt loam and very fine sandy loam; strong thin to thick varves; firm in place, friable in hand; strongly acid.

The thickness of the solum ranges from 20 to 50 inches. Depth to material contrasting with solum texture is 40 inches or more. Depth to bedrock is greater than 60 inches. Depth to free carbonates is greater than 80 inches. Rock fragments, mainly

gravel and cobbles, range from 0 to 5 percent above 40 inches and from 0 to 60 percent below 40 inches. Stones cover 0 to 10 percent of the surface in some areas.

The Ap horizon has hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 or 3. Texture is silt loam, very fine sandy loam, or fine sandy loam. Structure is weak or moderate fine or medium granular, sometimes parting from blocky. Consistence is friable or very friable. Undisturbed pedons have an A horizon with colors similar to the Ap but also include value of 2. They are 2 to 5 inches thick. Reaction ranges from extremely acid to strongly acid, unless the soil is limed.

The B horizon has hue of 7.5YR to 5Y, value of 4 or 5, and chroma of 3 to 6. Redoximorphic depletions and accumulations are within a depth of 24 inches. Texture is silt loam or very fine sandy loam. Structure is weak or moderate, thin to thick platy, or fine to coarse prismatic, or subangular blocky. Consistence is friable or very friable. Reaction ranges from extremely acid to strongly acid to a depth of 30 inches and very strongly acid to moderately acid below 30 inches.

The BC horizon, when present, has colors and textures similar to the B horizon. Structure is weak or moderate, thin to thick platy, fine to coarse prismatic or subangular blocky. Consistence is friable or very friable. Reaction ranges from extremely acid to strongly acid within a depth of 30 inches and very strongly acid to moderately acid below 30 inches.

The C horizon has hue of 7.5YR to 5Y, value of 4 to 6, and chroma of 1 to 4. Texture is silt loam to fine sandy loam. It may contain strata of gravel and sand. It is massive or single grain, and may have plate-like divisions. Consistence is loose to firm. Reaction ranges from strongly acid to slightly alkaline.

The 2C horizon, where present, has hue of 7.5YR to 5Y, value of 3 to 6, and chroma of 1 to 4. Texture is silt loam, very fine sandy loam, or loamy very fine sand in the fine earth fraction. In addition, below a depth of 40 inches it can range from fine sandy loam to very gravelly sand. The material is massive or single grain. Consistence is loose or friable. Reaction ranges from strongly acid to slightly alkaline.

Searsport Series

The Searsport series consists of very deep, very poorly drained soils formed in thick sandy deposits in depressions on outwash plains, deltas and terraces. Slopes range from 0 to 3 percent.

Searsport soils are in a drainage sequence with somewhat excessively drained Adams soils, moderately well drained Croghan soils, and somewhat poorly drained Naumburg soils. Searsport soils are associated with Wonsqueak, Burnt Vly, Pleasant Lake, Pillsbury, and Tughill soils. Searsport soils formed mainly in mineral soil material whereas Wonsqueak, Burnt Vly, and Pleasant Lake soils formed mainly in organic soil. Searsport soils are wetter and sandier than Pillsbury soils and have less gravel than Tughill soils.

Typical pedon of Searsport muck, in an area of Searsport-Haplosaprists-Naumburg complex; in Hamilton County, town of Lake Pleasant, about 750 feet north and west of the end of Oxbow Road and 270 feet northeast of Oxbow Lake at the end of Town Trail; USGS Lake Pleasant 15 minute topographic quadrangle; NAD27; lat. 43 degrees 27 minutes 06 seconds N. and long. 74 degrees 28 minutes 27 seconds W.

Oi—0 to 1 inch; slightly decomposed leaf litter and twigs.

Oa—1 to 9 inches; black (5YR 2.5/1) muck with about 50 percent mineral matter; about 15 percent fibers unrubbed, less than 2 percent fibers rubbed; massive; very friable; few coarse and common fine and medium roots; moderately acid; abrupt smooth boundary.

Cg1—9 to 17 inches; gray (10YR 5/1 and 10YR 6/1) loamy sand; single grain; loose; few fine to coarse roots; slightly acid; clear wavy boundary.

Cg2—17 to 55 inches; dark gray (10YR 4/1) coarse sand; single grain; loose; 5 percent rock fragments; slightly acid; abrupt wavy boundary.
Cg3—55 to 72 inches; dark grayish brown (2.5Y 4/2) fine sand; single grain; loose; slightly acid.

Depth to bedrock is greater than 60 inches. Gravel ranges from 0 to 15 percent, by volume, in the particle-size control section and from 0 to 45 percent below.

The O horizon is neutral or has hue of 5YR to 5Y, value of 2 or 3, and chroma of 0 to 2. Reaction ranges from very strongly acid to slightly acid.

The A horizon, where present, has hue of 5YR to 5Y, value of 2 to 4, and chroma of 1 or 2. Texture is loamy sand, sand, sandy loam, fine sandy loam or loamy fine sand or mucky analogues. Reaction ranges from very strongly acid to slightly acid, unless the soil is limed.

The Eg horizon, where present, is neutral or has hue of 10YR to 5Y, value of 4 to 7, and chroma of 0 or 1. Texture is fine sandy loam to sand. Reaction ranges from very strongly acid to slightly acid.

The C horizon is neutral or has hue of 10YR to 5Y, value of 4 to 6, and chroma of 0 to 4. Chroma of 3 or 4 is generally below a depth of 30 inches. Texture is loamy fine sand, loamy sand, fine sand, sand, or coarse sand in the fine-earth fraction and some pedons are stratified. Reaction ranges from very strongly acid to slightly acid.

Skerry Series

The Skerry series consists of very deep, moderately well drained soils on upland plains. These soils formed in loamy glacial till underlain by dense, sandy till derived mainly from granite and granitic gneiss rock. Slopes range from 0 to 15 percent.

Skerry soils are in a drainage sequence with well drained Becket soils and somewhat poorly drained Adirondack soils. Associated soils are Croghan, Naumburg, Lyman, Monadnock, Sabattis, and Tunbridge. Skerry soils have less sand in the solum than moderately well drained Croghan and somewhat poorly drained Naumburg soils. The Skerry soils have a dense substratum which is lacking in well drained Monadnock soils and very poorly drained Sabattis soils. Skerry soils are deeper than Tunbridge soils which have bedrock at 20 to 40 inches and Lyman soils which are 10 to 20 inches deep.

Typical pedon of Skerry fine sandy loam, 3 to 8 percent slopes, very bouldery, in Fulton County, town of Oppenheim, about 1,750 feet south of a point on Lottville Road that is 1,800 feet west of junction with North Road; USGS Oppenheim 7.5 minute topographic quadrangle; NAD27; lat. 43 degrees 06 minutes 04 seconds N. and long. 74 degrees 39 minutes 51 seconds W.

Oe—0 to 3 inch; dark brown (7.5YR 3/2) moderately decomposed plant material; weak medium granular structure; very friable; many fine and very fine roots, and common medium roots; extremely acid; clear wavy boundary.
Oa—3 to 5 inches; black (5YR 2.5/1) highly decomposed organic matter; weak fine granular structure; very friable; many fine and very fine roots, and common medium and coarse roots; extremely acid; abrupt wavy boundary.
E—5 to 7 inches; dark gray (7.5YR 4/1) fine sandy loam; weak medium and coarse subangular blocky structure; friable; common fine and very fine, and few medium and coarse roots; 5 percent gravel, 2 percent cobbles; very strongly acid; abrupt wavy boundary.
Bs1—7 to 11 inches; brown (7.5YR 4/4) fine sandy loam; weak medium subangular blocky structure; friable; common fine and very fine, and few medium roots; 10 percent gravel, 2 percent cobbles; very strongly acid; clear wavy boundary.

Bs2—11 to 17 inches; dark brown (7.5YR 3/3) fine sandy loam; weak medium subangular blocky structure; friable; common fine and very fine, and few medium roots; 10 percent gravel, 2 percent cobbles; strongly acid; clear wavy boundary.

BC—17 to 29 inches; brown (10YR 4/3) fine sandy loam; weak medium and coarse subangular blocky structure; friable; few fine and very fine roots; 10 percent gravel, 2 percent cobbles; common fine and medium prominent strong brown (7.5YR 4/6) soft masses of iron accumulation in the matrix, and common fine and medium faint light brownish gray (10YR 6/2) iron depletions, mostly in the lower 4 inches; strongly acid; abrupt wavy boundary.

Cd—29 to 72 inches; dark olive brown (2.5Y 5/3) gravelly loamy fine sand with about 30 percent lenses of fine sandy loam; massive, with medium and thick plate-like divisions; very firm and brittle; 15 percent gravel, 5 percent cobbles; common medium and coarse yellowish red (5YR 4/6) soft masses of iron accumulation; common medium and coarse distinct light gray (10YR 7/1) iron depletions; moderately acid.

Mineral solum thickness and depth to densic materials range from 20 to 38 inches. Rock fragments range from 5 to 30 percent in the solum and from 5 to 40 percent in the substratum. Unless the soil is limed, reaction ranges from extremely acid to slightly acid in the solum and very strongly acid to neutral in the substratum. Weak cementation or ortstein masses range from 0 to 50 percent in the spodic horizon.

The 0 horizon is neutral or has hue of 2.5YR to 10YR, value of 2 to 4, and chroma of 0 to 4.

Some pedons have an A horizon up to 4 inches thick that has hue of 10YR to 5YR, value of 2 to 3, and chroma of 1 or 2, or an Ap horizon that has hue of 10YR, value of 3 or 4, and chroma of 2 to 4. Texture is fine sandy loam, sandy loam or loam or their gravelly analogues.

The E horizon has hue of 5YR to 10YR, value of 4 to 6, and chroma of 1 or 2. Texture is fine sandy loam or sandy loam or their gravelly analogues.

The Bhs or Bh horizon, where present, has hue of 2.5YR to 7.5YR, value of 2 to 4, and chroma of 1 to 4. Texture is dominantly fine sandy loam, but includes sandy loam or their gravelly analogues.

The Bs horizon has hue of 2.5YR to 10YR, value of 2 to 6, and chroma of 3 to 8. Texture is fine sandy loam or sandy loam, or their gravelly analogues.

The BC horizon has hue of 10YR to 5Y, value of 3 to 6, and chroma of 2 to 6. Texture is fine sandy loam, sandy loam, loamy fine sand, loamy sand or their gravelly analogues.

Some pedons have an E' horizon below the B horizon that is up to 2 inches thick. It has hue of 10YR to 5Y, value of 4 to 6, and chroma of 2 or 3. Texture range is the same as the lower part of the B, but typically it is coarser textured than the overlying horizon.

The Cd layer has hue of 10YR to 5Y, value of 4 to 7, and chroma of 2 to 6. Texture is loamy sand or loamy fine sand, or is comprised of loamy layers and sandy lenses with a composite texture of loamy sand, loamy fine sand, fine sandy loam, sandy loam or their gravelly analogues. The lenses range from loamy fine sand to coarse sand and are 1/8 inch to 2 inches thick. They constitute more than 20 percent of the layer. The Cd layer has weak or moderate, thin to thick plate-like divisions or it is massive. Consistence is firm or very firm except in individual lenses where it is friable to loose.

Some pedons have a friable C horizon above the Cd that is up to 8 inches thick.

Stafford series

Soils of the Stafford series are very deep and somewhat poorly drained. They formed in sandy materials on glacial lake plains. Slopes ranges from 0 to 3 percent.

Stafford soils are in a drainage sequence with excessively drained Windsor soils and very poorly drained Scarboro soils. Stafford soils are associated with Agawam, Ninigret, and Fredon soils which have loamy subsoils overlying gravel or sand. Stafford soils are near Tonawanda soils which are higher in silt content (fig. 24).

Typical pedon of Stafford loamy fine sand, 0 to 3 percent slopes, in Fulton County, town of Johnstown, about 50 feet south of a hedgerow that is 100 feet east of the farm lane (on Lee Goff farm), at a point 800 feet north of O'Neil Ave., and 1,400 feet east of County Route 131 in a hayfield; USGS Peck Lake topographic quadrangle; NAD83; lat. 43 degrees, 01 minutes, 54.8 seconds N. and long. 74 degrees, 24 minutes, 10.9 seconds W.

Ap—0 to 5 inches, dark brown (10YR 3/3) loamy fine sand; dark grayish brown (10YR 4/2) dry; moderate medium granular structure; very friable; many very fine roots; strongly acid; abrupt wavy boundary.

A/B—5 to 10 inches, mixed dark brown (10YR 3/3), yellowish brown (10YR 5/6) and light olive brown (2.5Y 5/3) loamy fine sand; brown (10YR 5/3) dry; weak medium subangular blocky structure; friable; common very fine roots; few medium distinct strong brown (7.5YR 4/6) soft masses of iron accumulation; strongly acid; abrupt smooth boundary.

Bw—10 to 15 inches, light olive brown (2.5Y 5/3) loamy fine sand; weak medium and coarse subangular blocky structure; friable; common very fine roots; trace amount of gravel; common coarse prominent strong brown (7.5YR 4/6) soft masses of iron accumulation; common medium and coarse faint grayish brown (2.5Y 5/2) iron depletions; strongly acid; clear wavy boundary.

Figure 24.—The Stafford profile shown here has a loamy fine sand topsoil about 10 inches thick with grayish brown redox depletions and strong brown redox concentrations in the subsoil below. These redoximorphic features indicate a seasonal high water table within 10 inches of the surface during the wettest time of the year.

Bg—15 to 28 inches, grayish brown (2.5Y 5/2) fine sand; weak very thick platy structure parting to weak coarse subangular blocky; friable; few very fine roots in the upper part; trace amount of gravel; many medium and coarse prominent yellowish brown (10YR 5/6) soft masses of iron accumulation; common coarse and medium faint dark grayish brown (2.5Y 4/2) iron depletions; moderately acid; clear smooth boundary.
C1—28 to 50 inches, dark grayish brown (2.5Y 4/2) and grayish brown (2.5Y 5/2) stratified fine sand and sand; massive; very friable; common coarse prominent light olive brown (2.5Y 5/6) soft masses of iron accumulation; moderately acid; clear smooth boundary.
C2—50 to 65 inches, dark olive brown (2.5Y 3/3) fine sand; weakly stratified with very dark grayish brown (2.5Y 3/2) fine sand and dark brown (10YR 3/3) sand; single grain; loose; 2 percent gravel; slightly acid.

The thickness of the solum ranges from 25 to 40 inches. Depth to bedrock is greater than 60 inches. Rock fragments are typically absent, but up to 15 percent fine gravel is present in the C horizon of some pedons. Unless the soil is limed, reaction ranges from very strongly acid to neutral in the A horizon, very strongly acid to slightly acid in the B horizon, and strongly acid to slightly acid in the C horizon.

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 2 or 3. Texture is fine sandy loam, loamy fine sand, or fine sand. Structure is granular and consistence is friable or very friable.

The B horizon has hue of 5YR to 5Y, value of 5 or 6, chroma of 1 to 4, and contains redoximorphic features. At least one subhorizon within 20 inches has a chroma of 2. Texture is loamy sand, loamy fine sand, or fine sand. It has weak granular, subangular blocky or platy structure or it is massive. It is friable, very friable or loose. Thin lamellae, more firm than the matrix, are present in the B horizons of some pedons.

The C horizon is neutral, or has hue of 5YR to 5Y, value of 3 to 6, and chroma of 0 or 3. Texture is fine sand to sand. It is massive or single grain. Consistency is friable to loose.

Correlation Note: Map unit 165A was questionable for the range of surface color of the Stafford series. After mixing, it was very close to being a mollic subgroup. This should not significantly affect use and management on a local basis for most purposes.

Sun Series

Soils of the Sun series are very deep and poorly drained. They formed in glacial till in slight depressions on uplands along the Mohawk Valley. Slopes range from 0 to 3 percent.

Sun soils are in a drainage sequence with well drained and moderately well drained Broadalbin soils, moderately well drained Georgia soils and somewhat poorly drained Mosherville soils. Sun soils are near moderately deep to bedrock Galway soils and shallow Farmington soils. Also nearby are areas of the Endoaquolls and Hapludolls which are subject to frequent flooding, and the Timakwa soils in areas with a thick organic surface.

Typical pedon of Sun loam, 0 to 3 percent slopes, in Fulton County, town of Broadalbin, about 1.2 miles south of NY Route 29 and 2,750 feet west southwest of Midline Road; USGS Broadalbin topographic quadrangle; NAD83; lat. 43 degrees, 02 minutes, 09 seconds N. and long. 74 degrees, 11 minutes, 32 seconds W.

Ap1—0 to 5 inches; very dark grayish brown (10YR 3/2) loam, light brownish gray (10YR 6/2) dry; moderate medium and fine granular structure; very friable; many

fine and medium roots; 5 percent rock fragments; slightly acid; abrupt smooth boundary.

Ap2—5 to 9 inches; very dark grayish brown (10YR 3/2) loam, light brownish gray (10YR 6/2) dry; weak fine and medium subangular blocky structure parting to weak medium and fine granular; friable; common fine and medium roots; 5 percent gravel; many fine distinct brown (7.5YR 4/4) and few fine prominent strong brown (7.5YR 5/6) soft masses of iron accumulation along roots; slightly acid; abrupt wavy boundary.

BE—9 to 15 inches; brown (10YR 5/3) fine sandy loam; moderate thick platy structure parting to weak medium subangular blocky; friable; common very fine roots; many medium tubular pores; light brownish gray (10YR 6/2) ped surfaces; 10 percent hard gravel plus 10 to 15 percent soft black shale chips; many fine and medium distinct yellowish brown (10YR 5/6) soft masses of iron accumulation; neutral; clear wavy boundary.

Bw—15 to 23 inches; brown (10YR 5/3) ped interiors with grayish brown (10YR 5/2) ped faces, loam; weak coarse and medium subangular blocky structure; friable; few very fine roots; many medium tubular pores; 9 percent hard gravel and 1 percent cobbles, plus 10 to 15 percent soft black shale chips; many medium and coarse distinct dark yellowish brown (10YR 4/6) soft masses of iron accumulation, and many fine distinct gray (10YR 5/1) iron depletions in root channels; neutral; gradual wavy boundary.

BC—23 to 39 inches; light olive brown (2.5Y 5/3) ped interiors with grayish brown (2.5Y 5/2) ped faces, fine sandy loam; weak thick and very thick platy structure parting to weak medium subangular blocky; friable; few very fine roots; common very fine tubular pores; 12 percent gravel, 2 percent cobbles; many medium prominent yellowish brown (10YR 5/6) soft masses of iron accumulation, and common coarse distinct gray (N 5/0) iron depletions; slightly alkaline, slightly effervescent; clear wavy boundary.

Cd—39 to 80 inches; grayish brown (2.5Y 5/2) gravelly fine sandy loam; massive with plate-like divisions; firm; few very fine tubular pores; 18 percent gravel, 2 percent cobbles; many medium and coarse prominent strong brown (7.5YR 4/6) soft masses of iron accumulation on surfaces of plates; and many medium distinct gray (2.5Y 5/1) iron depletions in matrix and on surfaces of plates; moderately alkaline, violently effervescent.

The thickness of the solum ranges from 20 to 40 inches. Depth to bedrock is greater than 60 inches. Depth to carbonates usually ranges from 20 to 70 inches; however, some pedons lack carbonates. Rock fragments range in volume from 2 to 35 percent in the solum and from 15 to 50 percent in the substratum, but average less than 35 percent in the control section. These percentages include up to 10 percent greater than 3 inches in the A horizon and up to 15 percent in the B and C horizons. Reaction ranges from strongly acid to neutral in the mineral surface layer, from moderately acid to slightly alkaline in the subsoil, and from neutral to moderately alkaline in the substratum.

The Ap horizon has hue of 10YR or 2.5Y, value of 2 to 4, and chroma of 1 or 2. Texture of the fine-earth fraction is silt loam, loam, fine sandy loam, or sandy loam. Structure is weak or moderate, granular or subangular blocky. Consistence is friable or very friable. In uncultivated areas, the soil may have an O horizon up to 4 inches thick.

Some pedons have an E or BE horizon. They have hue of 5YR to 5Y, value of 3 to 5, and chroma of 2 to 4. Texture of the fine-earth fraction is silt loam, loam, fine sandy loam, or sandy loam in the fine-earth fraction. Structure is weak or moderate angular or subangular blocky, platy or the horizon is massive. Consistence is friable or firm.

The Bg horizon, where present, is neutral or has hue of 10YR to 5Y, value of 4 to 6, and chroma of 0 to 2 with chroma restricted to 0 or 1 if the horizon is massive.

Redoximorphic concentrations are common or many. The Bg horizon may be absent in pedons having depleted ped face colors. Texture of the fine-earth fraction is silt loam, loam, fine sandy loam, or sandy loam. Structure is weak or moderate angular blocky, subangular blocky, platy or the horizon is massive. Consistence is friable or firm.

The Bw horizon has hue of 5YR to 5Y, value of 3 to 5, and chroma of 2 to 4. It contains areas of iron oxide accumulations and areas of iron depletions. Texture of the fine-earth fraction is sandy loam, fine sandy loam, silt loam, or loam. Structure and consistence are the same as the Bg.

The BC or BCg horizon has hue of 5YR to 5Y, value of 3 to 6, and chroma of 1 to 4. Texture of the fine-earth fraction is sandy loam, fine sandy loam, or loam. Structure is subangular blocky, platy or the horizon is massive. Consistence is friable or firm. Carbonates are present in some pedons.

The Cd horizon has hue of 5YR to 5Y or is gleyed with hue of 5G, 5GY, or 5BG, value is 3 to 6, and chroma of 1 to 4. Texture of the fine-earth fraction is loam, fine sandy loam, or sandy loam. It is massive or has plate-like divisions. Consistence is firm or very firm.

Teel Series

Soils of the Teel series are very deep and moderately well drained. They formed in recent alluvium on flood plains. Slopes range from 0 to 3 percent.

Teel soils are near coarse silty Unadilla, Scio, and Tonawanda soils which are on slightly higher positions that do not flood. Also nearby are areas of Endoaquolls and Hapludolls which are subject to frequent flooding.

Typical pedon of Teel silt loam, 0 to 3 percent slopes, in Fulton County, town of Johnstown, about 0.2 mile south of the junction of County Route 116 and NY Route 334, then 400 feet east-northeast of bridge, and about 100 feet south of Cayadutta Creek; USGS Randall topographic quadrangle; WGS84; lat. 42 degrees, 59 minutes, 15.5 seconds N. and long. 74 degrees, 25 minutes, 44.7 seconds W.

Ap—0 to 10 inches, very dark grayish brown (10YR 3/2) silt loam; grayish brown (10YR 5/2) dry; weak fine subangular blocky structure parting to moderate medium granular; very friable; many very fine and fine roots, and few medium roots; neutral; abrupt smooth boundary.

Bw1—10 to 16 inches, dark brown (10YR 3/3) silt loam; moderate fine and medium subangular blocky structure; friable; common fine and very fine, and few medium roots; few medium faint dark yellowish brown (10YR 4/4) soft masses of iron accumulation intermittently along some roots; neutral; clear smooth boundary.

Bw2—16 to 32 inches, dark brown (10YR 3/3) silt loam; moderate fine and medium subangular blocky structure; friable; common fine and very fine roots; dark gray (10YR 4/1) ped faces; common fine and medium faint dark yellowish brown (10YR 4/4) and distinct dark yellowish brown (10YR 4/6) soft masses of iron accumulation on ped faces and roots; common fine faint very dark grayish brown (10YR 3/2) iron depletions; neutral; abrupt smooth boundary.

C1—32 to 40 inches, light olive brown (2.5Y 5/3) very fine sandy loam; massive; very friable; few very fine roots; many very fine and fine vesicular pores; many fine, medium and coarse distinct brown (7.5YR 4/4) soft masses of iron accumulation, and common medium faint grayish brown (2.5Y 5/2) iron depletions; neutral; clear smooth boundary.

C2—40 to 45 inches, light olive brown (2.5Y 5/4) very fine sandy loam; massive; very friable; few very fine roots; many very fine vesicular pores; common fine prominent strong brown (7.5YR 4/6) and common medium distinct brown (7.5YR 4/4) soft masses of iron accumulation especially along pores, and common medium distinct grayish brown (2.5Y 5/2) iron depletions; neutral; clear smooth boundary.

C3—45 to 56 inches, very dark grayish brown (2.5Y 3/2) loamy sand; massive; very friable; many fine prominent brown (7.5YR 4/4) soft masses of iron accumulation in matrix; neutral; abrupt smooth boundary.

C4—56 to 62 inches, dark grayish brown (2.5Y 4/2) and 10 percent dark gray (N 4/0) stratified silty clay loam, very fine sandy loam and loamy sand; single grain; varying from firm to loose; common coarse prominent strong brown (7.5YR 5/6) soft masses of iron accumulation in the silty clay loam part; neutral.

The thickness of the solum ranges from 24 to 50 inches. Rock fragments range from 0 to 5 percent in the solum and 0 to 20 percent in the C horizon. Reaction is strongly acid to neutral above 30 inches, and moderately acid to slightly alkaline below.

The Ap horizon has hue of 5YR to 2.5Y, value of 3 or 4, and chroma of 1 to 3. The texture is silt loam or very fine sandy loam.

The B horizon has hue of 5YR to 2.5Y, value of 3 to 6, and chroma of 2 to 4, and it contains redoximorphic features. Texture is silt loam or very fine sandy loam.

The C horizon is neutral or has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 0 to 4. Texture is silt loam, very fine sandy loam, or fine sandy loam. It is massive or has stratifications. It is loose to firm. Some pedons have layers of sand, loamy coarse sand, loamy sand, loamy fine sand, or silty clay loam below a depth of 40 inches.

Correlation Note: Map unit 232A has colors in the solum that are out of range for the Teel series due to the influence of dark shale in the parent material and not due to organic matter. These are not considered to be a mollic or umbric epipedon. This should not significantly affect use and management on a local basis for most purposes.

Timakwa Series

Soils of the Timakwa series are very deep and very poorly drained. They formed in well decomposed organic material overlying sandy soil. The organic deposits are 16 to 51 inches deep. Timakwa soils are in depressional areas on lake plains, outwash plains and till plains. Slopes range from 0 to 2 percent.

Timakwa soils are near sandy Scarboro soils which have a thinner organic mantle. Timakwa soils are also near clayey Fonda soils and loamy Ilion and Sun soils. They are commonly adjacent to Catden soils which have organic deposits deeper than 51 inches.

Typical pedon of Timakwa muck, 0 to 2 percent slopes, in Fulton County, in the town of Johnstown, 375 feet south-southeast of NY Route 30A at small parking area and 0.75 miles northeast of intersection with Hales Mills Road; USGS Gloversville topographic quadrangle; NAD83; lat. 43 degrees, 02 minutes, 22.5 seconds N. and long. 74 degrees, 19 minutes, 55.0 seconds W.

Oe—0 to 2 inches, black (5YR 2.5/1) broken face, mucky peat, very dark gray (5YR 3/1) rubbed, 50 percent herbaceous fibers, 10 percent rubbed; weak fine granular structure; loose; few fine roots; neutral; clear smooth boundary.

Oa1—2 to 10 inches, black (5YR 2.5/1) broken face and rubbed, muck; 10 percent fibers, 2 percent rubbed; weak medium subangular blocky structure; very friable; neutral; clear wavy boundary.

Oa2—10 to 18 inches, black (10YR 2/1) broken face, muck; black (7.5YR 2.5/1) rubbed; 10 percent fibers, 2 percent rubbed; 10 percent clean white sand grains; massive; friable; neutral; clear wavy boundary.

Oe'—18 to 20 inches, very dark gray (5YR 3/1) broken face and rubbed, mucky peat; 70 percent woody fibers, 10 percent rubbed; massive; friable; neutral; abrupt smooth boundary.

2C1—20 to 25 inches, dark grayish brown (2.5Y 4/2) loamy fine sand; massive; friable; few fine prominent dark yellowish brown (10YR 4/6), common fine prominent strong brown (7.5YR 4/6) and many coarse prominent red (2.5YR 4/8) soft masses of iron accumulation; neutral; clear smooth boundary.

2C2—25 to 60 inches, dark gray (10YR 4/1) and grayish brown, (10YR 5/2) sand; massive; friable; trace amount of fine gravel; neutral.

The depth to the contrasting sandy mineral material ranges from 16 to 51 inches. The organic layers are almost exclusively highly decomposed woody material. Reaction in the organic layers is extremely acid to neutral (in water). The mineral soil substratum is strongly acid to neutral.

The surface tier is neutral or has hue of 5YR to 10YR, value of 2 to 4, and chroma of 0 to 6. It is muck, but may have surface layers of mucky peat or peat. It is massive or has weak or medium, fine to coarse, granular or subangular blocky structure.

The subsurface and bottom tiers are neutral or have hue of 5YR to 10YR, value of 2 to 3, and chroma of 0 to 4. They are composed dominantly of muck, and are massive.

The mineral 2C horizon is neutral or has hue of 7.5YR to 5Y, value of 3 to 6, and chroma of 0 to 8. Texture is sand through loamy fine sand and gravelly analogues.

Tonawanda Series

Soils of the Tonawanda series are very deep and somewhat poorly drained. They formed in deposits of silt and very fine sand on glacial lake plains. Slopes range from 0 to 8 percent.

Tonawanda soils are in a drainage sequence with well drained Unadilla soils, moderately well drained Scio soils and very poorly drained Birdsall soils. They are near the Hudson, Rhinebeck and Madalin soils which formed in clayey sediments, and the Windsor soils which formed in sandy outwash deposits.

Typical pedon of Tonawanda silt loam, 3 to 8 percent slopes, in Fulton County, town of Johnstown, about 650 feet north along County Route 122 from its intersection with NY Route 29A, then about 500 feet east of County Route 122 in a field; USGS Gloversville topographic quadrangle; NAD83; lat. 43 degrees, 03 minutes, 29.1 seconds N. and long. 74 degrees, 22 minutes, 41.7 seconds W.

Ap—0 to 9 inches, dark brown (10YR 3/3) silt loam; pale brown (10YR6/3) dry; moderate fine and medium granular structure; very friable; many very fine, and few fine roots; 1 percent gravel; strongly acid; abrupt smooth boundary.

Bw1—9 to 16 inches, yellowish brown (10YR 5/4) silt loam; weak medium and fine subangular blocky structure; very friable; common very fine, and few medium roots; few dark brown (10YR 3/3) krotovinas; trace amounts of rock fragments; common fine faint yellowish brown (10YR 5/6) soft masses of iron accumulation; common fine faint brown (10YR 5/3) areas of iron depletion; moderately acid; clear smooth boundary.

Bw2—16 to 25 inches, brown (10YR 5/3) silt loam; moderate medium and fine subangular blocky structure; friable; common very fine roots; many continuous faint grayish brown (10YR 5/2) coatings on ped faces; trace amounts of rock fragments; common fine distinct yellowish brown (10YR 5/6) soft masses of iron accumulation; common medium distinct gray (2.5Y 5/1) areas of iron depletion with thin a yellowish brown (10YR 5/6) rind; moderately acid; gradual wavy boundary.

BC—25 to 34 inches, brown (10YR 4/3) silt loam; moderate coarse and very coarse prismatic structure; friable; few very fine roots along prism faces; many continuous prominent grayish brown (2.5Y 5/2) coatings on ped faces with thin strong brown (7.5YR 4/6) rinds; common fine distinct yellowish brown (10YR 5/6) soft masses of iron accumulation, and common medium faint grayish brown (10YR 5/2) areas of iron depletion; moderately acid; clear wavy boundary.

C1—34 to 52 inches, brown (10YR 4/3) silt loam; massive with few weak varves; firm; many medium and coarse prominent strong brown (7.5YR 4/6) soft masses of iron accumulation; many medium prominent light brownish gray (2.5Y 6/2) areas of iron depletion; moderately acid; clear smooth boundary.

C2—52 to 80 inches, brown 10YR 4/3) and dark grayish brown (10YR 4/2) silt loam with very fine sandy loam varves; moderate thick and very thick varves having grayish brown (10YR 5/2) surfaces; friable; common medium distinct dark yellowish brown (10YR 4/6) soft masses of iron accumulation; common medium distinct gray (2.5Y 6/1) areas of iron depletion; slightly acid.

The thickness of the solum ranges from 16 to 40 inches. Rock fragments range from 0 to 2 percent in the solum and 0 to 15 percent in the substratum. Reaction ranges from very strongly acid to neutral in the surface layer, strongly acid to neutral in the subsoil, and from moderately acid to slightly alkaline in the substratum. Below a depth of 40 inches from the surface, some pedons range to moderately alkaline and are effervescent.

The Ap horizon has hue of 10YR or 2.5Y, value of 2 to 4, and chroma of 1 to 3. Texture is silt loam, silt, very fine sandy loam, or loam. Some pedons have a thin A horizon or AB horizon.

The B horizon has hue of 5YR to 5Y, value of 4 to 6, and chroma of 1 to 4. The matrix has a chroma of 3 or greater immediately below the A or Ap or to a depth of greater than 10 inches below the mineral surface. Texture is silt loam, loam, silt, very fine sandy loam, or loamy very fine sand. Thin layers, 1 to 3 inches thick, of sand or gravelly sand, and silty clay loam are in some pedons. Structure is weak or moderate, very fine to medium, granular or subangular blocky. Consistence is very friable to firm.

The BC horizon has hue of 5YR to 5Y, value of 4 to 6, and chroma of 1 to 4. Texture is silt loam, loam, silt, very fine sandy loam, or loamy very fine sand. Structure is weak or moderate, granular, subangular blocky or prismatic. Consistence is very friable to firm.

The C horizon has hue of 5YR to 5Y, value of 4 to 6, and chroma of 1 to 6. Texture is silt loam, loam, silt, or very fine sandy loam. Thin strata of sand to fine sandy loam or silty clay loam are in some pedons. It is massive or has plate-like divisions. Consistence is loose to firm.

Tughill Series

The Tughill series consists of very deep, very poorly drained soils formed in glacial till derived from acid siliceous rocks. These soils are in depressional areas of upland till plains. Slopes range from 0 to 5 percent.

Tughill soils are associated with well drained Becket soils, moderately well drained Skerry soils and somewhat poorly drained Adirondack and Pillsbury soils which have less rock fragments and a dense substratum. Tughill soils are also associated with the Burnt Vly, Pleasant Lake, Wonsqueak, Sabattis, and Searsport soils. Tughill soils have more rock fragments than Sabattis and Searsport soils. Tughill soils have a thin organic surface layer compared to Burnt Vly, Pleasant Lake, and Wonsqueak soils.

Typical pedon of Tughill cobbly mucky fine sandy loam, in a unit of Adirondack-Sabattis-Tughill complex, 0 to 8 percent slopes, very bouldery, in Fulton County, town of Bleeker, about 210 feet west-southwest of the parking area at the north end of Pinnacle Mountain Road; USGS Caroga Lake 7.5 minute topographic quadrangle; NAD83; lat. 43 degrees 12 minutes 23.9 seconds N. and long. 74 degrees 23 minutes 28.5 seconds W.

Oa —0 to 2 inches; very dark gray (7.5YR 3/1) cobbly muck, very dark gray (10YR 3/1) dry; weak medium granular structure; very friable; many fine and very fine roots; 10 percent gravel, 10 percent cobbles; strongly acid; abrupt wavy boundary.

A—2 to 8 inches; black (7.5YR 2.5/1) cobbly mucky fine sandy loam, very dark gray (7.5YR 3/1 dry; weak medium granular structure; very friable; many fine and very fine, common medium, and few coarse roots; 10 percent gravel, 10 percent cobbles; strongly acid; clear wavy boundary.

Bg—8 to 22 inches; grayish brown (2.5Y 5/2) very cobbly fine sandy loam; weak fine subangular blocky structure; friable; few very fine roots in top 1 inch; 25 percent gravel, 20 percent cobbles; common fine and medium distinct light olive brown (2.5Y 5/4) soft masses of iron accumulation; common fine faint gray (2.5Y 5/1) iron depletions; moderately acid; gradual wavy boundary.

C1—22 to 38 inches; grayish brown (2.5Y 5/2) very cobbly fine sandy loam; massive; friable; 20 percent cobbles, 25 percent gravel; common fine and medium distinct light olive brown (2.5Y 5/4) and common fine distinct olive brown (2.5Y 4/4) soft masses of iron accumulation; common fine and medium faint light brownish gray (2.5Y 6/2) iron depletions; slightly acid; gradual wavy boundary.

C2—38 to 51+ inches; grayish brown (2.5Y 5/2) very cobbly fine sandy loam; massive; friable; 15 percent cobbles, 25 percent gravel; common medium prominent yellowish brown (10YR 5/6) soft masses of iron accumulations; slightly acid.

The thickness of the solum ranges from 18 to 40 inches. Bedrock is at a depth greater than 60 inches. Redoximorphic features consisting of iron depletions and concentrations, and reduced matrices occur directly below the A horizon. Rock fragments, mainly stones, cobbles, and gravel, range from 3 to 35 percent by volume in the A and E horizons, and 35 to 60 percent in the B and C horizons. Reaction ranges from extremely acid to strongly acid in the O, A and E horizons, extremely acid to slightly acid in the B horizon, and strongly acid to neutral in the C horizon.

The O horizon has hue of 5YR to 10YR, value of 2 or 3, and chroma of 1 or 2. It is composed of hemic or sapric material. It is massive or has granular structure.

The A or Ap horizon has hue of 7.5YR to 2.5Y, value of 2 or 3, and chroma of 1 or 2, or it is N 2/0. Texture of the fine earth fraction is sandy loam, fine sandy loam, loam, or silt loam with or without mucky analogs. Some pedons have a BA horizon up to 7 inches thick with colors and textures similar to that of the A horizon.

The E horizon, if present, has hue of 10YR or 2.5Y, or is neutral, has value of 5 or 6, and chroma of 0 to 2. It has none to common redoximorphic concentrations. Texture is sandy loam, fine sandy loam, loam, or silt loam in the fine earth fraction.

The B horizon is neutral in color or has hue of 5YR to 5Y, value of 3 to 6, and chroma of 0 to 2. It has 15 to 40 percent redoximorphic concentrations of higher chroma than the matrix. The B horizon is sandy loam, fine sandy loam, loam, or silt loam in the fine earth fraction. It has weak subangular blocky or platy structure. It is friable or firm.

The C horizon is similar to the B horizon in texture and color but has none to common redoximorphic concentrations or depletions. The C horizon is massive or has platy structure. It is friable to very firm.

Tunbridge Series

The Tunbridge series consists of moderately deep, well drained soils on glaciated bedrock controlled uplands. They formed in loamy till. Slopes range from 0 to 70 percent.

Tunbridge soils are associated with the Adirondack, Becket, Wonsqueak, Lyman, Monadnock, Potsdam, Knob lock, and Skerry soils. The Tunbridge soils are not very deep to bedrock as the Adirondack, Becket, Wonsqueak, Monadnock, Potsdam and Skerry soils. Tunbridge soils are not as shallow to bedrock as the Lyman soils. Tunbridge soils have less organic matter in the overall profile than Knob lock soils.

Typical pedon of Tunbridge fine sandy loam, in a map unit of Becket-Tunbridge complex, 15 to 35 percent slopes, rocky, very bouldery, in Fulton County, town of Stratford, north of Knappville, about 2,300 feet south-southwest of a bridge over East Canada Creek on Piseco Road, and along a snowmobile trail; USGS Stratford 7.5 minute topographic quadrangle; NAD83; lat. 43 degrees 14 minutes 56 seconds N. and long. 74 degrees 39 minutes 29 seconds W.

Oe—0 to 1 inch, very dark brown (7.5YR 2.5/2) moderately decomposed needles and leaves; weak fine and medium granular structure; very friable; many fine and very fine roots; extremely acid; clear wavy boundary.

Oa—1 to 3 inches; black (7.5YR 2.5/1) highly decomposed plant material; weak fine and medium subangular blocky structure; very friable; many fine and very fine roots; extremely acid; abrupt wavy boundary.

E—3 to 4 inches; gray (7.5YR 5/1) fine sandy loam; weak fine and medium subangular blocky structure; very friable; common very fine, fine and medium roots, and few coarse roots; 7 percent gravel, 3 percent cobbles; extremely acid; clear wavy boundary.

Bhs—4 to 5 inches; very dark brown (7.5YR 2.5/2) fine sandy loam; weak fine subangular blocky structure; very friable; common very fine, fine and medium roots, and few coarse roots; 7 percent gravel, 3 percent cobbles; extremely acid; clear broken boundary.

Bs—5 to 8 inches; brown (7.5YR 4/4) fine sandy loam; weak fine and medium subangular blocky structure; very friable; common very fine, fine and medium roots, and few coarse roots; 7 percent gravel, 3 percent cobbles; very strongly acid; diffuse wavy boundary.

BC—8 to 22 inches; yellowish brown (10YR 5/6) cobbly fine sandy loam; weak fine and medium subangular blocky structure; very friable; few fine, medium and coarse roots; 10 percent gravel, 10 percent cobbles; very strongly acid; abrupt wavy boundary.

R—22 inches; slightly weathered gneiss bedrock.

The thickness of the mineral solum ranges from 14 to 38 inches. The depth to bedrock ranges from 20 to 40 inches. Reaction ranges from extremely acid to moderately acid in the solum and from strongly acid to slightly acid in the substratum. Rock fragments are mostly gravel, channers, and cobbles and range from 5 to 35 percent throughout the mineral soil. The thickness of spodic horizon (combined Bh, Bs, and Bhs horizon, where present) ranges from 4 to 16 inches and is weakly smeary or not smeary. The silt content in the solum and substratum is typically less than 50 percent. The fine-earth is typically fine sandy loam, sandy loam, very fine sandy loam, or loam, but horizons of silt loam are allowed.

The O horizons have hue of 5YR to 10YR, value of 2 to 3, and chroma of 0 to 2. They are slightly decomposed to highly decomposed organic matter.

The A horizon, where present, is neutral or has hue of 5YR to 10YR, value of 2 to 5, and chroma of 0 to 4. Texture is typically loam, very fine sandy loam, fine sandy loam, or sandy loam in the fine-earth fraction but includes silt loam.

Some pedons have an Ap horizon that has hue of 5YR to 10YR, value of 2 to 4, and chroma of 2 to 4. Textures are similar to the A horizon.

The E horizon has hue of 5YR to 10YR, value of 4 to 6, and chroma of 1 or 2. Texture is typically loam, very fine sandy loam, fine sandy loam, sandy loam, or loamy fine sand in the fine-earth fraction but includes loamy fine sand and silt loam.

Some pedons have a BE horizon that has hue of 5YR to 10YR, value of 4 to 6, and chroma of 2 to 4. Textures are similar to the E horizon.

The Bh horizon, where present, is neutral or has hue of 5YR to 10YR. It typically has value of 2 to 3, and chroma of 0 to 2, but higher values and chromas are allowed.

The Bs horizon has hue of 5YR to 2.5Y, value and chroma of 4 or more.

The Bhs horizon has hue of 5YR to 10YR, value and chroma of 3 or less. It is less than 6 inches thick.

The BC horizon has hue of 7.5YR to 2.5Y, value of 3 to 5, and chroma of 3 to 8. It is up to 16 inches thick.

The B horizons are typically loam, very fine sandy loam, fine sandy loam, or sandy loam in the fine-earth fraction but includes silt loam.

The C horizon, where present, has hue of 10YR to 5Y, value of 4 to 6, and chroma of 2 to 6. Texture is typically loam, very fine sandy loam, fine sandy loam, or sandy loam in the fine-earth fraction but includes silt loam.

Bedrock is slightly weathered schist, gneiss or granite

Udipsamments

Udipsamments consist of very deep, excessively to moderately well drained sandy soil that has been disturbed by human activity. Most areas are associated with glacial outwash soils throughout the survey area. Slopes range from 0 to 8 percent.

Udipsamments occur as current and former construction sites and associated landscaped areas, or as reclaimed sand pits. Former soil horizons have been buried, removed or truncated so that the diagnostic horizons are absent. Most fill material is earthen material from onsite land shaping.

These soils are named above the series level in soil classification because of variability in the material and a lack of soil features that would permit more detailed classification. For these reasons, a typical pedon of Udipsamments is not provided.

Udipsamments have little or no soil profile development. Typically, the texture of the material is loamy sand, loamy fine sand, sand, or fine sand, with layers of silty material or gravel at varying depths. Rock fragments range from 0 to 35 percent by volume. Subsurface layers may be weakly stratified because of filling and grading practices. Reaction ranges from very strongly acid to neutral in the surface, and strongly acid to moderately alkaline below.

The surface layer is typically brown or dark brown topsoil which has been deposited and graded to support plant cover. Subsurface layers are brown or yellowish brown through olive brown and may be original soil material, or material that was moved from adjoining land-shaping activities.

Udorthents

Udorthents consist of very deep, excessively drained to moderately well drained soil material that has been manipulated by human activity. They are on mostly glacial till and lake plain landscapes throughout the survey area. Slopes range from 0 to 33 percent.

Udorthents occur mostly as construction sites and associated landscaped areas. Some delineations consist of areas which were formerly landfills for municipal solid waste and have been closed and capped. Former soil horizons have been buried, removed or truncated so that diagnostic horizons are mostly absent. Most fill material is earthen material from onsite land shaping and material hauled in from nearby construction sites.

These soils are named above the series level in the soil classification system because of variability in the material and a lack of soil features that would permit more detailed classification. For these reasons, a typical pedon of Udorthents is not provided.

In areas of Udorthents, refuse substratum, the profile is arranged according to New York State Department of Environmental Conservation regulations 6NYCRR, Part 360.

Depth to bedrock is usually greater than 60 inches. Udorthents have textures of ranging from sand to silty clay loam with loamy textures more common. Colors range in hue from 2.5YR to 2.5Y with value of 3 to 6 and chroma of 1 to 8. Rock fragments range from 0 to 60 percent by volume. Reaction ranges very strongly acid to moderately alkaline.

Unadilla Series

Soils of the Unadilla series are very deep and well drained. They formed in deposits of silt and very fine sand on valley terraces and glacial lake plains. Slopes range from 3 to 8 percent.

Unadilla soils are in a drainage sequence with moderately well drained Scio soils, somewhat poorly drained Tonawanda soils and very poorly drained Birdsall soils. They are near Elmridge and Aeric Epiaquepts soils which developed in loamy material overlying clayey deposits. Unadilla soils are also associated with the Hudson, Rhinebeck, and Madalin soils which formed in clayey sediments, and the Windsor soils which formed in sandy outwash deposits.

Typical pedon of Unadilla silt loam, 3 to 8 percent slopes, in Fulton County, town of Broadalbin, about 25 feet east of County Route 110 at a point 0.1 mile south of intersection with Lake View Road; USGS Broadalbin topographic quadrangle; NAD83; lat. 43 degrees, 04 minutes, 14.3 seconds N. and long. 74 degrees, 11 minutes, 47.8 seconds W.

Ap —0 to 9 inches, dark brown (10YR 3/3) silt loam, pale brown (10YR 6/3) dry; moderate medium and fine granular structure; very friable; many very fine, and few fine and medium roots; trace amounts of gravel; neutral, limed; abrupt smooth boundary.

Bw1—9 to 16 inches, dark yellowish brown (10YR 4/4) silt loam; weak medium subangular blocky structure; very friable; many very fine roots; trace amounts of gravel; moderately acid; clear wavy boundary.

Bw2—16 to 24 inches, yellowish brown (10YR 5/4) silt loam; weak medium and fine subangular blocky structure; friable; common very fine roots; moderately acid; clear wavy boundary.

C1—24 to 29 inches, light olive brown (2.5Y 5/3) silt loam; weak medium and thick plate-like divisions; friable; few very fine roots; common very fine yellowish brown (10YR 5/6) stains along some roots; common very fine vesicular pores; moderately acid; abrupt wavy boundary.

C2—29 to 33 inches, light olive brown (2.5Y 5/3) very fine sandy loam; moderate medium plate-like divisions inherited from varving; friable; few very fine roots in upper 4 inches; common very fine tubular pores; common fine and medium prominent dark yellowish brown (10YR 4/6) and yellowish brown (10YR 5/6) soft masses of iron accumulation along some pores and plates; moderately acid; abrupt wavy boundary.

C3—33 to 72 inches, light olive brown (2.5Y 5/3) and olive brown (2.5Y 4/3) very fine sandy loam with thin varves of silt loam; moderate medium and thick plate-like divisions inherited from varving; friable; few very fine vesicular pores; common fine and medium prominent yellowish brown (10YR 5/8) soft masses of iron accumulation along pores and varves; moderately acid.

The thickness of solum ranges from 20 to 50 inches. Depth to strongly contrasting materials is more than 40 inches. Depth to bedrock is greater than 60 inches. Rock fragment content ranges from 0 to 5 percent in the solum and 0 to 60 percent in the C or 2C horizon. The soil has redoximorphic features below a depth of 24 inches in some pedons.

The Ap horizon has hue of 5YR to 2.5Y, value of 3 to 5, and chroma of 2 through 4. Dry color value is 6 or more. Texture of the fine-earth fraction is silt loam or very fine sandy loam. Structure is weak or moderate granular, blocky or platy. Consistence ranges from very friable to firm. Unless the soil is limed, reaction ranges from very strongly acid to moderately acid.

Some pedons have a thin, dark A horizon or an AB horizon.

The B horizon has hue of 5YR to 2.5Y, value of 3 to 6, and chroma of 3 to 8. Texture of the fine-earth fraction is silt loam or very fine sandy loam. Some pedons have lens of loamy very fine sand or fine sand. Structure is weak or moderate subangular blocky or prismatic or it is massive. Consistence ranges from very friable to firm. Some pedons have a few thin lamellae. Reaction ranges from very strongly acid to moderately acid. Some pedons have a thin E horizon just above the B horizon.

The 2C or C horizon has hue of 7.5YR to 5Y, value of 4 or 5, and chroma of 2 to 6. Texture of the fine-earth fraction is silt loam, very fine sandy loam, or loamy very fine sand above a depth of 40 inches, but ranges from silt loam to very gravelly sand below 40 inches. The horizon is massive, single grain, or it has weak to moderate plate-like divisions. Consistence ranges from loose to firm. Reaction ranges from strongly acid to slightly alkaline.

Urban Land

Urban land is land mostly covered by streets, parking lots, buildings, and other structures with essentially impervious surfaces that are characteristic of urban areas.

Whitman Series

Soils of the Whitman series are very deep and very poorly drained. They are shallow to dense soil material. They formed in loamy glacial till derived from granite, gneiss, and schist in depressions. Slopes range from 0 to 3 percent.

Whitman soils are in a drainage sequence with well drained Paxton soils, moderately well drained Woodbridge soils, and somewhat poorly drained Ridgebury soils. Whitman soils are also near Charlton soils, which do not have a dense substratum. Whitman soils are near areas of moderately deep to bedrock Chatfield soils and shallow Hollis soils.

Typical pedon of Whitman mucky loam, 0 to 3 percent slopes, in Fulton County, town of Northampton, about 450 feet west of NY Route 30 at a point 0.4 mile north of intersection with County Route 152 in a wooded area; USGS Northville 7.5 minute topographic quadrangle; WGS84; lat. 43 degrees 11 minutes 39.8 seconds N. and long. 74 degrees 11 minutes 51.0 seconds W.

Oa—0 to 2 inches, black (7.5YR 2.5/1) muck; weak medium granular structure; very friable; many fine and very fine roots; very strongly acid; abrupt smooth boundary.

A—2 to 8 inches, very dark gray (7.5YR 3/1) mucky loam; weak fine subangular blocky structure; very friable; many fine and very fine, and few medium roots; 10 percent gravel, 1 percent cobbles; very strongly acid; clear wavy boundary.

Bg1—8 to 10 inches; dark gray (10YR 4/1) fine sandy loam; weak medium and fine subangular blocky structure; friable; many very fine and fine roots, and few medium and coarse roots; 10 percent gravel, 1 percent cobbles; common fine distinct dark yellowish brown (10YR 4/4) soft masses of iron accumulation along some roots; strongly acid; clear wavy boundary.

Bg2—10 to 18 inches, grayish brown (10YR 5/2) fine sandy loam; weak fine and medium subangular blocky structure; friable; few very fine roots; 10 percent gravel, 1 percent cobbles; many coarse and medium prominent dark yellowish brown

(10YR 4/6) and yellowish brown (10YR 5/6) soft masses of iron accumulation; moderately acid; clear smooth boundary.

Cd1—18 to 30 inches, light olive brown (2.5Y 5/3) gravelly fine sandy loam; massive; very firm, brittle; 25 percent gravel, 5 percent cobbles; common medium and coarse faint dark yellowish brown (10YR 4/4) and prominent (10YR 4/6) soft masses of iron accumulation, and common medium and coarse faint grayish brown (2.5Y 5/2) iron depletions; slightly acid; gradual smooth boundary.

Cd2—30 to 60 inches, light olive brown (2.5Y 5/3) gravelly sandy loam; massive; firm; 25 percent gravel, 5 percent cobbles; common fine and medium faint dark yellowish brown (10YR 4/4) soft masses of iron accumulation; few medium faint grayish brown (2.5Y 5/2) iron depletions; slightly acid.

Depth to a densic contact commonly is 12 to 20 inches. The A horizon has 5 to 25 percent gravel, 0 to 15 percent cobbles, and 0 to 3 percent stones by volume. The B and C horizons have 5 to 25 percent gravel, 0 to 5 percent stones and 0 to 5 percent cobbles. The soil reaction, unless limed, ranges from very strongly acid to slightly acid; however, some horizon within a depth of 40 inches is moderately acid or slightly acid.

The O horizon has hue of 7.5YR or 10YR, value of 2 to 3, and chroma of 0 to 2. It is fibric, hemic or sapric material, and up to 5 inches thick.

The A horizon is neutral or has hue of 7.5YR or 10YR, value of 2 to 3, and chroma of 0 to 2. Texture sandy loam, fine sandy loam, very fine sandy loam, loam, or silt loam in the fine-earth fraction. Structure is weak granular or subangular blocky or the horizon is massive. Consistence is very friable or friable.

The Bg horizon is neutral or has hue of 10YR to 5Y, value of 4 to 6, and chroma of 0 to 2. Redoximorphic concentrations range from few to many where matrix chroma is 2, and none to many where chroma is 1. Texture is sandy loam, fine sandy loam, or loam in the fine-earth fraction. It has fifteen percent or more fine sand or coarser with clay content less than 18 percent. Structure is weak granular or subangular blocky or the horizon is massive. Consistence is very friable or friable.

The Cd horizon is neutral or has hue of 10YR to 5Y, value of 4 to 6, and chroma of 0 to 2. The chroma is 3 in some places. Redoximorphic features range from few to many. Texture is loam, fine sandy loam, or sandy loam in the fine-earth fraction. Consistence commonly is firm to extremely firm and the layer may be brittle in some part. The structure is geogenically derived, commonly appearing in the form of weak or moderate plates in the upper part or is massive throughout.

Windsor Series

Soils of the Windsor series are very deep and excessively drained. They formed in water sorted sand on glacial outwash plains, kames, and terraces. Slopes range from 0 to 50 percent.

Windsor soils are in a drainage sequence with moderately well drained Deerfield soils, somewhat poorly drained Stafford soils, and very poorly drained Scarboro soils. They are near gravelly Hinckley soils. Windsor soils are also near moderately well drained Ninegret soils, which have a loamy subsoil overlying sand and gravel.

Typical pedon of Windsor loamy sand, nearly level, in Saratoga County, town of Moreau, about 1,200 feet east of Potter Road, 2,000 feet south of Butler Road in a pine plantation; USGS Glens Falls topographic quadrangle; NAD27; lat. 43 degrees, 15 minutes, 25 seconds N. and long. 73 degrees, 42 minutes, 28 seconds W.

Oe—0 to 2 inches, moderately decomposed pine needles.

Ap—2 to 11 inches, very dark grayish brown (10YR 3/2) loamy sand; weak fine granular structure; very friable; many fine and few medium roots; strongly acid; abrupt wavy boundary.

Bw1—11 to 21 inches, yellowish brown (10YR 5/6) loamy sand; weak fine granular structure; very friable; many fine and few medium roots; strongly acid; gradual wavy boundary.
Bw2—21 to 25 inches, yellowish brown (10YR 5/4) sand; single grain; loose; strongly acid; clear wavy boundary.
C—25 to 72 inches, light yellowish brown (10YR 6/4) sand; single grain; loose; strongly acid.

The thickness of the solum ranges from 18 to 36 inches. Depth to bedrock is greater than 60 inches. Rock fragments, dominantly fine gravel, range from 0 to 5 percent throughout the soil. The reaction is very strongly acid to moderately acid in the solum, and very strongly acid to slightly acid in the C horizon.

The O horizon has hue of 7.5 YR or 10YR, value of 2 to 3, and chroma of 1 or 2. It is slightly decomposed to highly decomposed plant material.

The Ap horizon has hue of 7.5 YR or 10YR, value of 3 or 4, and chroma of 2 to 4. Texture is loamy fine sand or loamy sand.

The B horizon has hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 4 to 8 in the upper part and chroma of 3 to 6 in the lower part. Texture is loamy fine sand or loamy sand in the upper part, and loamy fine sand, loamy sand, fine sand, or sand in the lower part. Structure is granular or subangular blocky or the horizon is massive or single grain.

The C horizon has hue of 5YR to 5Y, value of 4 to 7, and chroma of 2 to 6. Texture is fine sand, sand, loamy fine sand, or loamy sand.

Wonsqueak Series

The Wonsqueak series consists of very deep, very poorly drained soils formed in organic material 16 to 51 inches thick overlying loamy mineral deposits. These soils are in depressions within outwash plains, moraines and between till ridges. In some places, Wonsqueak soils are associated with flood plains. Slopes range from 0 to 2 percent.

Wonsqueak soils are closely associated with Adams, Colton, Naumburg, Rumney, Searsport, and Tughill soils. All these associates have less than 16 inches of organic material over sandy or loamy material.

Typical pedon of Wonsqueak mucky peat, in a map unit of Bucksport-Wonsqueak complex, in Hamilton County, town of Lake Pleasant, 0.3 miles north of NY Route 8 on Pelcher Road, then about 50 feet southwest of Pelcher road in a mixed brush, forest and sphagnum bog; USGS Lake Pleasant 15 minute topographic quadrangle; NAD27; lat. 43 degrees 28 minutes 47 seconds N. and long. 74 degrees 23 minutes 59 seconds W.

Oe—0 to 9 inches; black (5YR 2.5/1 broken face and rubbed) mucky peat; about 70 percent fibers, 20 percent rubbed; 10 percent silt; weak fine granular structure; very friable, non-sticky; many fine, common medium and coarse roots; 2 percent coarse woody fragments; very strongly acid; clear smooth boundary.
Oa1—9 to 24 inches; black (5YR 2.5/1 broken face and rubbed) muck; about 15 percent fibers, 2 percent rubbed; 15 percent silt; massive; very friable; many fine, few medium and coarse roots; 10 percent coarse woody fragments; very strongly acid (pH 4.8 in water); clear smooth boundary.
Oa2—24 to 44 inches; black (10YR 2/1)(broken face and rubbed) sapric material (muck); about 10 percent fibers, 1 percent rubbed; 20 percent silt; massive; very friable, slightly sticky; 2 percent coarse woody fragments; strongly acid(pH 5.2 in water); abrupt smooth boundary.

2Cg—44 to 72 inches; very dark gray (N 3/0)and dark gray (N 4/0) fine sandy loam; many clean light gray (10YR 7/1) patches; massive; friable; 12 percent rock fragments; slightly acid.

The thickness of the organic soil material and the depth to the mineral substratum ranges from 16 to 51 inches. Depth to bedrock is greater than 60 inches. Content of woody fragments in the organic material ranges from 0 to 20 percent by volume. The content of mineral material in the organic layers ranges from 0 to 20 percent. The fibers are typically of herbaceous origin but the fibers in some layers are of woody origin. In some pedons, fibers from sphagnum moss are dominant in the surface tier and make up thin layers in the subsurface and bottom tier. Rock fragments in the substratum range from 0 to 15 percent by volume.

The surface tier is neutral or has hue of 2.5YR to 10YR, value of 2 to 3, and chroma of 0 to 2. The surface tier is typically sapric material but in some pedons may be hemic or fibric materials. The surface tier ranges from extremely acid to slightly acid in 0.01 M calcium chloride.

The subsurface and bottom tiers are neutral or have hue of 2.5YR to 10YR, value of 2 to 3, and chroma of 0 to 2. They are typically sapric materials but some pedons have thin layers of fibric material with a total thickness of less than 5 inches, or thin layers of hemic material with a total thickness of less than 10 inches. Reaction ranges from very strongly acid to slightly acid in 0.01 M calcium chloride.

The C horizon is neutral or has hue of 5YR to 5GY, value of 3 to 6, and chroma of 0 to 4. Texture ranges from fine sandy loam to silty clay loam in the fine-earth fraction. Reaction ranges from strongly acid to neutral.

Woodbridge Series

Soils of the Woodbridge series are very deep and moderately well drained. They formed in compact glacial till deposits derived mainly from granite, schist, and gneiss. They are on hillslopes and till plains. Slopes range from 3 to 8 percent.

Woodbridge soils are in a drainage sequence with well drained Paxton soils, somewhat poorly drained Ridgebury soils, and very poorly drained Whitman soils. Woodbridge soils are near Charlton soils which do not have a restrictive layer in the substratum. Woodbridge soils are also associated with moderately deep to bedrock Chatfield soils and shallow Hollis soils.

Typical pedon of Woodbridge loam, 3 to 8 percent slopes, in Saratoga County, town of Galway, in a wooded area 700 feet south of NY Route 29 and 60 feet east of Spring Road; USGS Galway topographic quadrangle; NAD27; lat. 43 degrees, 03 minutes 37 seconds N. and long. 74 degrees, 06 minutes, 19 seconds W.

A —0 to 5 inches; very dark grayish brown (10YR 3/2) loam; light brownish gray (10YR 6/2) dry; weak fine granular structure; friable; common fine roots; 5 percent rock fragments; very strongly acid; clear wavy boundary.

Bw1—5 to 16 inches; dark brown (7.5YR 3/4) loam; weak medium subangular blocky structure; friable; few fine roots; 5 percent rock fragments; common fine prominent yellowish brown (10YR 5/8) soft masses of iron accumulation; very strongly acid; clear wavy boundary.

Bw2—16 to 26 inches; brown (10YR 4/3) fine sandy loam; weak medium subangular blocky structure; friable; few fine roots; 10 percent rock fragments; few fine faint grayish brown (10YR 5/2) areas of iron depletion below 20 inches; strongly acid; clear smooth boundary.

Cd—26 to 72 inches; olive brown (2.5Y 4/4) sandy loam; massive; firm, brittle; 10 percent rock fragments; common fine prominent yellowish brown (10YR 5/8) soft masses of iron accumulation; common fine distinct grayish brown (10YR 5/2) areas of iron depletion; moderately acid.

The solum thickness ranges from 20 to 40 inches and commonly corresponds to the depth to the dense substratum. Depth to bedrock is greater than 60 inches. Rock fragments range from 5 to 35 percent throughout the soil. Reaction ranges from very strongly acid to moderately acid throughout the soil.

The Ap horizon, where present, has hue of 10YR, value of 3 or 4, and chroma of 2 to 4. Undisturbed pedons have a thin A horizon with value of 2 or 3, and chroma of 1 or 2. Texture ranges from sandy loam to loam in the fine earth fraction. The horizon is friable or very friable.

The upper part of the B horizon has hue of 7.5YR to 2.5Y, value

of 3 to 6, and chroma of 3 to 8. The lower part of the B horizon has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 3 to 6. There are redoximorphic features in the form of iron depletions within 24 inches of the surface. Textures are sandy loam, fine sandy loam, or loam in the fine earth fraction. The horizon has weak subangular blocky or granular structure or it is massive. Consistence is friable or very friable.

The Cd horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 to 4. There are distinct or prominent redoximorphic features. Texture is sandy loam through loam in the fine earth fraction. The horizon has weak medium or thick plate-like divisions or it is massive. Consistence is firm or very firm and brittle.

Formation of the Soils

The first part of this section describes the factors of soil formation and relates them to the formation of the soils in the survey area. The second part defines the processes of soil horizon development as they relate to soil formation in Fulton County.

Factors of Soil Formation

Soils are natural three-dimensional bodies at the earth's surface. They are products of weathering and other physical and chemical processes that act on parent material. The properties of a soil at a given point on the earth depend on the combination of the following factors: the physical and chemical composition of the parent material; the topography; the climate; plant and animal life; and time. The relative influence of each of these factors differs from place to place, and each modifies the effect of the others. For example, the impact of climate over a given area is tempered by relief or parent material. In many areas, the influence of a single factor is dominant.

Parent Material

Parent material is the unconsolidated earthy material in which soils are formed. It influences the physical, chemical, and mineralogical composition of the soils. It also influences the rate at which soil forming processes will proceed. The soils in Fulton County formed in a variety of materials including glacial till, glaciofluvial (outwash) and glaciolacustrine (lake laid) deposits, recent alluvium, and deposits of organic matter. Glacial till, glacial outwash, and lacustrine deposits consist of material that was left when the glaciers melted some 10,000 to 15,000 years ago. Alluvium and organic matter are of more recent origin. Glacial till is the most extensive type of parent material. Less extensive are glacial outwash, colluvial or alluvial deposits, lacustrine, and organic deposits. Table 22 shows the relationship between parent material, landscape position, and drainage class of the soils in Fulton County.

Soils formed in glacial till have a wide range of characteristics as a result of the heterogeneous nature of the till, its rock, and soil particles. Some soils, such as the Becket and Woodbridge series, are formed in very deep glacial till deposits that have dense, firm or very firm lower subsoil and substratum layers. Other soils, such as the Charlton and Berkshire series, are examples of soils that formed in very deep till having friable substratum layers rather than the dense layers. In some places, the glacial till deposits are relatively thin over hard bedrock. Lyman is an example of a soil which is shallow to metamorphic bedrock. Galway is moderately deep to limestone bedrock. Some areas have bedrock exposed at the surface. A few map units are also mapped in some areas of the county in complex with rock outcrop, or are very rocky phases where the glacial till deposits are very thin.

As the glacial ice melted, large quantities of meltwaters transported and sorted soil and rock debris. This material is referred to as glacial outwash and was redeposited in layers of sand and gravel on outwash plains and terraces. Hinckley and Colton are examples of soils formed in this material. These soils are skeletal with very gravelly and sandy subsoil and substratum layers.

In some parts of the survey area, small glacial lakes trapped silty or clayey sediments. The Scio series is an example of a soil that formed in medium textured lacustrine deposits, and the Rhinebeck series formed in fine textured lacustrine deposits.

In more recent times, overflowing streams have deposited alluvial material on the flood plains. This material tends to be variable in texture. Examples of soils formed in medium textured alluvium are the Teel series. Endoaquolls and Hapludolls are examples of soils that generally formed in variable textured alluvial materials, and they have little or no soil development. Soils formed in organic deposits are mainly in closed depressions. Catden and Wonsqueak are examples of soils formed in well-decomposed organic material.

Topography

The shape of the land surface, commonly called the lay of the land, the slope, and the position of the land surface in relation to the water table have a great influence on the formation of the soils in the county. Soils that formed in convex sloping positions, where little or no runoff accumulates, are generally well drained, have bright colored subsoil layers, and do not contain gray mottles (redoximorphic features). In most places these soils are leached to greater depths than wetter soils in the same general area. Examples of soils in this category are the Berkshire and Lansing series. In more gently sloping or concave areas where runoff is slower, the soils generally exhibit some evidence of wetness for short periods of time, such as mottling (redoximorphic features) in the subsoil. The Georgia and Manheim series are examples. In level or slightly depressional areas, the water table is usually closer to the surface for extended periods and these soils show evidence of wetness to a marked degree. These soils have low chroma matrix colors or redoximorphic features close to the surface. In some areas they also tend to have dark-colored surface layers due to accumulation of sediment or organic materials on the surface. Examples of these types of soils include the Ilion and Fonda series. Some soils, such as the Sun series, are wet because they occupy a position where water accumulates and is perched above a restricting layer in the soil.

Local differences in soils are largely the result of differences in parent material and topography. Table 22 shows the relationship between the soils, their parent materials, landscape position, and drainage.

Climate

Climate, in particular temperature and precipitation, is one of the most influential of the soil forming factors. It determines to a large degree the kind of weathering processes that occur. In addition, climate affects the growth and kind of vegetation and the leaching and translocation of weathered material. Frost action contributes to the breakdown of stones and boulders. Fulton County has a humid, temperate climate that tends to promote the development of moderately weathered, leached soils. The average temperature of Fulton County is variable enough to cause significant differences between the soils in the Mohawk Valley and the southern part of the county, compared to those in the northern part, especially above an average elevation of 1,000 feet. The soils in the northern part formed under colder conditions, thereby slowing down formative factors such as decomposition, biological activity, and weathering. They often tend to have slightly higher organic matter accumulations in the surface layer. Soil series mapped in those areas reflect these differences. More detailed and specific data on the climate of Fulton County is in the climate section under “General Nature of the Survey Area”.

Plant and Animal Life

All living organisms, including plants, animals, bacteria, and fungi, influence soil formation. Vegetation is generally responsive for the amount of organic matter and nutrients in the soil and for the color and structure of the surface layer. Earthworms and borrowing animals help to keep the soil porous and more permeable for air and water. Their waste products cause aggregations of soil particles and improve soil structure. Bacteria and fungi decompose vegetation, which results in the release of nutrients. This survey area was originally in native forest consisting of northern hardwoods, pine, and hemlock. The loss of nutrients through leaching is slow under hardwoods because they take up large quantities of bases (nutrients) and return much of them to the soil surface each year as leaf litter. Conifers, such as pines and hemlock, do not use large amounts of nutrients; therefore, leaching is more rapid than it is under hardwoods. Tree rooting depth is often shallow in many of the upland soils and wet areas of the county. As a result, trees are susceptible to windthrow, which has caused much mixing of the soil materials. Human activity, through clearing trees and cultivating the land, has also influenced changes that occur in soils. These types of disturbances have added nutrients by fertilization, have mixed some soil horizons by plowing, and have accelerated erosion in many areas.

Time

The degree of profile development not only reflects the age of a soil but it also reflects the influence of other factors. In geological terms, the deposits in which soils formed in the survey area are relatively young, being deposited since or when the last glacier receded about 10,000 to 15,000 years ago.

The soils have not all reached the same stage of soil profile development, because the other soil forming factors also influence the rate of soil profile development. The time factor is fairly constant within the county. The difference in the appearance and the depth of the weathering is more a function of the differences in the parent material. An immature soil is one that has not had enough time to develop distinct horizons. The Endoaquolls and Hapludolls soils are good examples. They formed in recent alluvium in areas that are regularly flooded. Thus, sediment is deposited during periodic flood events, such that the time for soil development is constantly interrupted, and thin or irregular soil profiles develop.

Processes of Soil Horizon Development

This section contains a brief explanation of soil horizon nomenclature and a discussion of the processes involved in soil horizon development as they relate to soil formation. The soil-forming factors cause the formation of different layers, or soil horizons. These soil horizons can be viewed in a vertical cut of soil, known as a soil profile. The soil profile extends from the surface downward into material that is little altered by the soil-forming processes.

Most soils contain three major horizons, called A, B, and C horizons.

Several processes cause the formation of soil horizons. They include the accumulation of organic matter, the leaching of soluble salts and minerals, the translocation of clay minerals, the reduction and transfer of iron, and the formation of dense and compact layers in the subsoil. The accumulation of organic matter takes place as plant residue decomposes. This process

darkens the surface layer and helps to form the A horizon. It takes a long time to replace this organic matter once it has been lost. The organic matter content of the surface layer of soils in the survey area averages about 5 percent. For soils to develop a distinct subsoil, some of the soluble salts must be leached before other soil processes such as translocation of clay minerals can take place. Factors that

affect leaching include the kinds of salts originally present, the rate and depth of percolation, and the texture of the soil. One of the more important processes of soil horizon development in some of the soils is the translocation of silicate clay minerals. The amount of clay minerals in a soil is inherent in the parent material, but clay content varies from one soil horizon to another. Clay particles are transported (eluviation) downward from the A horizon and redeposited (illuviation) in the B horizon as clay films on ped faces, as linings along pores and root channels, and as coatings on some rock fragments. In some soils, an E horizon has formed due to the loss by considerable eluviation of minerals and clay to the B horizon. The Rhinebeck soil is an example of a soil where the clay content is higher in the B horizon than in the A horizon because of translocation. The reduction and transfer of iron compounds occur mainly in the wetter, more poorly drained soils. This process is known as gleying. In poorly drained and very poorly drained soils, such as Ilion and Timakwa soils, the grayish substratum indicates the reduction of iron. In somewhat poorly drained soils, such as Tonawanda and Appleton soils, yellowish brown, strong brown and brown mottles, and redoximorphic concentrations indicate the segregation of iron compounds. A bright-colored, unmottled subsoil indicates a well drained soil where no reduction and transfer of iron have taken place. Unadilla soils are an example.

References

American Association of State Highway and Transportation Officials (AASHTO). 1998. Standard specifications for transportation materials and methods of sampling and testing. 19th edition, 2 volumes.

American Society for Testing and Materials (ASTM). 1998. Standard classification of soils for engineering purposes. ASTM Standard D 2487.

Birkeland, Peter W. 1974. Pedology, weathering, and geomorphological research.

Birkeland, Peter W. 1984. Soils and geomorphology. 2nd edition.

Black, C.A. 1968. Soil-plant relationships. 2nd edition.

Buol, S.W., F.D. Hole, and R.J. McCracken. 1980. Soil genesis and classification. 3rd edition.

Coleman, Steven M. 1981. Rock-weathering rates as functions of time. Quaternary Research 15: pp.250-264.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Denny, C. S., 1982. Geomorphology of New England. United States Geological Survey Professional Paper, No.1208, p.18.

De Simone, D.J., and La Fleur, R.G. 1985. Glacial Geology and History of the Northern Hudson Basin, New York and Vermont, in Lindemann, R.H., ed., Field Trip Guidebook for the 57th Annual Meeting of the New York State Geological Association, Skidmore College, Saratoga Springs, NY. pp. 82-116.

Dineen, R.J., and Hanson, E., 1995. Glacial deposits in the Mohawk and Sacandaga Valleys or a tale of two tongues redux, in Garver, J.I. and Smith, J.A., eds., Field Trip Guide for the 67th Annual Meeting of the New York State Geological Association, Union College, Schenectady, NY. pp.39-55.

Eyre, F.H., editor. 1980. Forest cover types of the United States and Canada. Society of American Forestry.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. February 24, 1995. Hydric soils of the United States.

Fenneman, N. M., 1938. Physiography of eastern United States: New York, NY. McGraw-Hill Book Company, p.714.

Fulton County Regional Chamber of Commerce, 2006. Fulton County Highway and Recreation Map.

Fulton County Regional Chamber of Commerce and Industry website: http://www.fultoncountyny.org/.

Hurt, G.W., P.M. Whited, and R.F. Pringle, editors. 1998. Field indicators of hydric soils in the United States.

Jenny, Hans. 1941. Factors of soil formation.

Jenny, Hans. 1980. The soil resource—Origin and behavior. Ecological Studies 37.

Khasawneh, F.E., E.C. Sample, and E.J. Kamprath, editors. 1980. The role of phosphorus in agriculture. American Society of Agronomy.

Larson, Grahame J. and Stone, Byron D. ed., 1980 Late Wisconsinan Glaciation of New England, Proceedings of the Symposium: late Wisconsinan Glaciation of New England.

Lyford, F.P., Dysart, J.E., Randall, A.D., and Kontis, A.L., 1984, Glacial aquifer systems in the northeastern United States—a study plan: U.S. Geological Survey Open-File Report 83-928, 33 p.

Munson, Robert D., editor. 1985. Potassium in agriculture. American Society of Agronomy.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Portland Cement Association. 1973. PCA soil primer.

Ruhe, Robert V. 1956. Geomorphic surfaces and the nature of soils. Soil Science 82: 441-455.

Simonson, Roy W. 1959. Outline of a generalized theory of soil genesis. Soil Science Society of America Proceedings 23: 152-156.

Stevenson, F.J. 1982. Humus chemistry: Genesis, composition, reactions.

Stevenson, F.J., editor. 1982. Nitrogen in agricultural soils. American Society of Agronomy, Agronomy Monograph 22.

Tewksbury, Barbara J., Allers, Robert H., Geology of The Mohawk and Black River Valleys—A Field Trip for Earth Science Teachers in New York State Geologic Association Guidebook, No.198, pp. 121-130.

Thornbury, William D. 1969. Principles of geomorphology. 2nd edition.

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Forest Service. 1976. Volume, yield, and stand tables for second-growth southern pines. Forest Service Miscellaneous Publication 50.

United States Department of Agriculture, Natural Resources Conservation Service. National engineering handbook. (Available in the State Office of the Natural Resources Conservation Service at Syracuse, New York).

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. (Available in the State Office of the Natural Resources Conservation Service at Syracuse, New York).

United States Department of Agriculture, Natural Resources Conservation Service. 1996. National soil survey handbook, title 430-VI. Soil Survey Staff. (Available in the State Office of the Natural Resources Conservation Service at Syracuse, New York).

United States Department of Agriculture, Natural Resources Conservation Service. 1996. Soil survey laboratory methods manual. Soil Survey Investigations Report 42.

United States Department of Agriculture, Natural Resources Conservation Service. 1998. Keys to soil taxonomy. 8th edition. Soil Survey Staff.

United States Department of Agriculture, Natural Resources Conservation Service. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Soil Survey Staff. U.S. Department of Agriculture Handbook 436.

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210.

United States Department of Agriculture, Soil Conservation Service. 1981. Land resource regions and major land resource areas of the United States. U.S. Department of Agriculture Handbook 296.

United States Department of Agriculture, Soil Conservation Service. 1987. Basic statistics, 1982 national resources inventory. Statistical Bulletin 756.

United States Department of Agriculture, Soil Conservation Service. 1993. Soil survey manual. Soil Survey Staff, U.S. Department of Agriculture Handbook 18.

Van Diver, Brad 1985. Roadside Geology of New York, Mountain Press Publishing Company, Missoula, Montana

Walsh, L.M., and J.D. Beaton, editors. 1973. Soil testing and plant analysis. Soil Science Society of America.

Yatsevich, Y. 1968. The surficial geology of the Gloversville area: unpublished Masters Thesis, Rensellaer Polytechnic Institute, p.73.

Yngvar W. Isachsen, 2000. Geology of New York: A Simplified Account (New York State Museum's Educational Leaflet No.28) with New York State Geological Highway Map (Educational Leaflet) New York State Museum, No. 28.

Glossary

ABC soil. A soil having an A, a B, and a C horizon.

Ablation till. A general term for loose, relatively permeable, earthy material deposited during the downwasting of nearly static glacial ice, either contained within or accumulated on the surface of the glacier.

Alluvial. Pertaining to material or processes associated with transportation and/or subaerial deposition by concentrated running water.

Alluvial fan. A low, outspread mass of loose materials and/or rock material, commonly with gentle slopes, shaped like an open fan or a segment of a cone, deposited by a stream (best expressed in semiarid regions) at the place where it issues from a narrow mountain or upland valley; or where a tributary stream is near or at its junction with the main stream. It is steepest near its apex which points upstream and slopes gently and convexly outward (downstream) with a gradual decrease in gradient.

Alluvium. Unconsolidated, clastic material subaerially deposited by running water, including gravel, sand, silt, clay, and various mixtures of these.

Animal unit month (AUM). The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

Anthropogenic feature. An artificial feature on the land surface, having a characteristic shape and range in composition, composed of unconsolidated earthy, organic materials, artificial materials, or rock, that is the direct result of human manipulation or activities; can be either constructional (e.g., artificial levee) or destructional (quarry).

Aquic conditions. Current soil wetness characterized by saturation, reduction, and redoximorphic features.

Aquifer. A saturated, permeable geologic unit of sediment or rock that can transmit significant quantities of water under hydraulic gradients.

Argillic horizon. A subsoil horizon characterized by an accumulation of illuvial clay.

Aspect. The direction toward which a slope faces with respect to the compass or to the rays of the sun; also called *slope* aspect.

Available water capacity (available moisture capacity). The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field moisture capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 40-inch profile or to a limiting layer is expressed as:

Very low	0 to 2.4
Low	2.4 to 3.2
Moderate	3.2 to 5.2
High	more than 5.2

Backslope. The hillslope profile position that forms the steepest and generally linear, middle portion of the slope. In profile, backslopes are commonly bounded by a convex shoulder above and a concave footslope below. They may or may not include cliff segments (i.e. free faces). Backslopes are commonly erosional forms produced by mass movement, colluvial action, and running water.

Backswamp. A flood-plain landform. Extensive, marshy or swampy, depressed areas of flood plains between natural levees and valley sides or terraces.

Bar (streams). A general term for a ridge-like accumulation of sand, gravel, or other alluvial material formed in the channel, along the banks, or at the mouth of a stream where a decrease in velocity induces deposition.

Basal till. (not preferred; obsolete) refer to subglacial till. Unconsolidated material of mixed composition deposited at the base (bottom) of a glacier [The term emphasizes only the relative position of deposition; e.g. subglacial till]. Types of basal till include lodgement, melt-out, and flow till. *Obsolete-use lodgement till.* A firm, dense, clay-rich till containing many abraded stones (coarse fragments) dragged along beneath a moving glacier and deposited upon bedrock or other glacial deposits.

Basin. (a) Drainage basin; (b) A low area in the earth's crust, of tectonic origin, in which sediments have accumulated; (c)(colloquial: western USA) A general term for the nearly level to gently sloping, bottom surface of an intermontane basin (bolson). Landforms include playas, broad alluvial flats containing ephemeral drainageways, and relict alluvial and lacustrine surfaces that rarely, if ever, are subject to flooding. Where through-drainage systems are well developed, flood plains are dominant and lake plains are absent or of limited extent.

Bed (stratigraphy). The layer of sediments or sedimentary rocks bounded above and below by more or less well-defined bedding surfaces. The smallest, formal lithostratigraphic unit of sedimentary rocks. The designation of a bed or a unit of beds as a formally named lithostratigraphic unit generally should be limited to certain distinctive beds whose recognition is particularly useful. Coal beds, oil sands, and other layers of economic importance commonly are named, but such units and their names usually are not a part of formal stratigraphic nomenclature.

Bedded. Formed, arranged, or deposited in layers or beds, or made up of or occurring in the form of beds; especially said of a layered sedimentary rock, deposit, or formation.

Bedrock. A general term for the solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.

Bedrock-controlled topography. A landscape where the configuration and relief of the landforms are determined or strongly influenced by the underlying bedrock.

Bench. Refer to structural bench.

Bog. Waterlogged, spongy ground, consisting primarily of mosses, containing acidic, decaying vegetation such as sphagnum, sedges, and heaths, that may develop into peat.

Borrow pit. An excavated area from which earthy material has been removed typically for construction purposes offsite; also called barrow pit.

Boulders. Rock fragments larger than 2 feet (60 centimeters) in diameter.

Buried. (adjective) Landforms, geomorphic surfaces, or paleosols covered by younger sediments (e.g. eolian, glacial, and alluvial).

Buried soil. Soil covered by an alluvial, loessial, or other earthy mantle of more recent material, typically to depths exceeding 50 cm; recent surface deposits less than 50 cm thick are generally considered as part of the ground soil.

Calcareous soil. A soil containing enough calcium carbonate (commonly combined with magnesium carbonate) to effervesce visibly when treated with cold, dilute hydrochloric acid.

Catena (as used in USA). A sequence of soils across a landscape, of about the same age, derived from similar parent material, and occurring under similar climatic conditions, but have different characteristics due to variations in relief and in drainage.

Channel (stream). The hollow bed where a natural body of surface water flows or may flow. The deepest or central part of the bed of a stream, containing the main current and occupied more or less continuously by water.

Chert. A hard, extremely dense or compact, dull to semivitreous, cryptocrystalline sedimentary rock, consisting dominantly of interlocking crystals of quartz less than about 30 mm in diameter; it may contain amorphous silica (opal). It sometimes contains impurities such as calcite, iron oxide, or the remains of silicious and other organisms. It has a tough, splintery to conchoidal fracture and may be white or variously colored gray, green, blue, pink, red, yellow, brown, and black. Chert occurs principally as nodular or concretionary segregations in limestones and dolomites.

Clay. As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.

Clay film. A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin. Closed depression. A generic name for any enclosed area that has no surface drainage outlet and from which water escapes only by evaporation or subsurface drainage; an area of lower ground indicated on a topographic map by a hachured contour line forming a closed loop.

Coarse loamy soil. Soil particle size class having more than 15 percent by weight particles of fine sand and coarser, including up to 75 mm size, and less than 18 percent clay by weight.

Coarse textured soil. Sand or loamy sand.

Cobble (or cobblestone). A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.

Colluvium. Unconsolidated, unsorted earth material being transported or deposited on sideslopes and/or at the base of slopes by mass movement (e.g. direct gravitational action) and by local, unconcentrated runoff.

Complex, soil. A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.

Conservation terrace. An earthen embankment constructed across a slope for conducting water from above at a regulated flow to prevent accelerated erosion and to conserve water.

Conservation tillage. A tillage system that does not invert the soil and that leaves a protective amount of crop residue on the surfacethroughout the year.

Continental glacier. A glacier of considerable thickness completely covering a large part of a continent or an area of at least 50,000 square km, obscuring the underlying surface, such as the ice sheets covering Antarctica or Greenland. Continental glaciers occupied northern portions of the coterminous USA and Alaska in the past (e.g., Pleistocene) and usage commonly implies former continental glacier conditions.

Coprogenous earth (Soil Taxonomy). A type of limnic layer (sedimentary peat) composed predominantly of fecal material derived from aquatic animals.

Coprogenic material (soil survey). The remains of fish excreta and similar materials that occur in some organic soils.

Corrosion. Soil-induced electrochemical or chemical action that dissolves or weakens concrete or uncoated steel.

Cover crop. A close-growing crop grown primarily to improve and protect the soil between periods of regular crop production, or a crop grown between trees and vines in orchards and vineyards.

Crop residue management. Returning crop residue to the soil, which helps to maintain soil structure, organic matter content, and fertility and helps to control erosion.

Creep (mass movement). The process, associated sediments (creep deposit) or resultant landform or mantle characterized by a very slow type of earthflow dominated by the gradual movement of unconsolidated earthy material down slopes, caused by gravity, facilitated by occasional saturation with water or alternate freezing and thawing; sometimes redundantly called soil creep.

Crest. (a) The commonly linear, narrow top of a ridge, hill, or mountain. It is appropriately applied to elevated areas where retreating backslopes are converging such that these high areas are almost exclusively composed of convex shoulders; (b) (not preferred) Sometimes used as an alternative for the hillslope component summit.

Cut (geology). A passage, incision, or space from which material has been excavated, such as a road cut or a railroad cut.

Cut and fill. A process of leveling, whereby material eroded from one place by waves, currents, streams, or winds is deposited nearby until the surfaces of erosion and deposition are continuous and uniformly graded; especially lateral erosion on the concave banks of a meandering stream accompanied by deposition within its loops.

Cutbank. A slope or wall portion of a cut excavated into unconsolidated material (regolith) or bedrock, as in a borrow pit. It may stand nearly vertical resulting from collapse as the base is undercut during excavation or by erosion, or it may be reduced by subsequent erosion to a more subdued angle by slope wash.

Cutbanks cave (in tables). The walls of excavations tend to cave in or slough.

Debris. Any surficial accumulation of loose material detached from rock masses by chemical and mechanical means, as by decay and disintegration. It consists of rock clastic material of any size and sometimes organic matter.

Degradation (geomorphology). The wearing down or away, and the general lowering of the land surface by natural processes of weathering and erosion (e.g., the deepening by a stream of its channel) and may infer the process of transportation of sediment.

Delta. A body of alluvium, nearly flat and fan-shaped, deposited at or near the mouth of a river or stream where it enters a body of relatively quiet water, usually a sea or lake.

Dense layer (in tables). A very firm, massive layer that has a bulk density of more than 1.6 grams per cubic centimeter. Such a layer affects the ease of digging and can affect filling and compacting.

Dendritic drainage pattern. A drainage pattern in which the streams branch randomly in all direction and at almost any angle, resembling in plan the branching habit of certain trees.

Deposit. Earth material of any type, either consolidated or unconsolidated, that has accumulated by natural processes.

Deposition. The laying down of any material by any agent such as wind, water, ice or by other natural processes.

Depression. Any relatively sunken part of the earth's surface; especially a low-lying area surrounded by higher ground. A closed depression has no natural outlet for surface drainage (e.g. a sinkhole). An open depression has a natural outlet for surface drainage.

Diamicton. A generic term for any nonlithified, nonsorted or poorly sorted sediment that contains a wide range of particle sizes, such as coarse fragments contained within a fine earth matrix (e.g. till) and used when the genetic context of the sediment is uncertain.

Diatomaceous earth. A geologic deposit of fine, grayish, siliceous material composed chiefly or wholly of the remains of diatoms. It may occur as a powder or a rigid material. Also called diatomaceous materials.

Dip (soil survey). A geomorphic component (characteristic piece) of flat plains (e.g., lake plain, low coastal plain, low-relief till plain) consisting of a shallow and typically closed depression that tends to be an area of focused groundwater recharge but not a permanent water body and favors the accumulation of fine sediments and organic materials.

Dip (geology). The maximum angle that a structural surface, e.g. a bedding or fault plane, makes with the horizontal, measured perpendicular to the strike of the structure and in the vertical plane.

Discontinuity (stratigraphy). Any interruption in sedimentation, whatever its cause or length, usually a manifestation of nondeposition and accompanying erosion; an unconformity.

Ditch. An open and usually unpaved (unlined), channel or trench excavated to convey water for drainage (removal) or irrigation (addition) to or from a landscape; smaller than a canal; some ditches are modified natural waterways.

Divide. (a) The line of separation; (b) The summit area, or narrow tract of higher ground that constitutes the watershed boundary between two adjacent drainage basins; it divides the surface waters that flow naturally in one direction from those that flow in the opposite direction.

Dolomite (rock). A carbonate sedimentary rock consisting chiefly (more than 50 percent by weight or by areal percentages under the microscope) of the mineral dolomite.

Drainage basin. A general term for a region or area bounded by a drainage divide and occupied by a drainage system.

Drainage class (natural). Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized—*excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained,* and *very poorly drained*. These classes are defined in the “Soil Survey Manual.”

Drainage pattern. The configuration of arrangement in plan view of the natural stream courses in an area. It is related to local geologic and geomorphologic features and history.

Drainageway. (a) A general term for a course or channel along which water moves in draining an area. (b) (soil survey) a term restricted to relatively small, roughly linear or arcuate depressions that move concentrated water at some time, and either lack a defined channel (e.g. head slope, swale) or have a small, defined channel (e.g. low order streams).

Drift (glacial geology). A general term applied to all mineral material (clay, silt, sand, gravel, boulders) transported by a glacier and deposited directly by or from the ice, or by running water emanating from a glacier. Drift includes unstratified material (till) that forms moraines, and stratified deposits that form outwash plains, eskers, kames, varves, and glaciofluvial sediments. The term is generally applied to Pleistocene glacial deposits in areas that no longer contain glaciers.

Drumlin. A low, smooth, elongated oval hill, mound, or ridge of compact till that has a core of bedrock or drift. It usually has a blunt nose facing the direction from which the ice approached and a gentler slope tapering in the other direction. The longest axis is parallel to the general direction of glacier flow. Drumlins are products of streamline (laminar) flow of glaciers, which molded the subglacial floor through a combination of erosion and deposition.

Dump. An area of smooth or uneven accumulations or piles of waste rock, earthy material, or general refuse that without major reclamation are incapable of supporting plants.

Dune. A low mound, ridge, bank or hill of loose, windblown, subaerially deposited granular material (generally sand), either barren and capable of movement from place to place, or covered and stabilized with vegetation, but retaining its characteristic shape.

Elevation (survey). The height of a point on the earth's surface relative to mean sea level (msl).

End moraine. A ridge-like accumulation that is being or was produced at the outer margin of an actively flowing glacier at any given time; a moraine that has been deposited at the outer or lower end of a valley glacier

Eolian. Pertaining to material transported and deposited (eolian deposit) by the wind. Includes clastic materials such as dune sands, sand sheets, loess deposits, and clay (e.g. parna).

Eolian deposit (soil survey). Sand, silt or clay-sized clastic material transported and deposited primarily by wind, commonly in the form of a dune or a sheet of sand or loess. Conventionally, primary volcanic deposits (e.g. tephra) are handled separately.

Ephemeral stream. Generally a small stream, or upper reach of a stream, that flows only in direct response to precipitation. It receives no protracted water supply from melting snow or other sources and its channel is above the water table at all times.

Erosion. The wearing away of the land surface by running water, waves, or moving ice and wind, or by such processes as mass wasting and corrosion (solution and other chemical processes). The term "geologic erosion" refers to natural erosion processes occurring over long (geologic) time spans. "Accelerated erosion" generically refers to erosion in excess of what is presumed or estimated to be naturally occurring levels, and which is a direct result of human activities (e.g. cultivation, logging, etc.).

Erosional Geomorphology (adjective). Owing its origin, form, position or general character to degradational processes by water, wind, ice or gravity.

Erosion surface. A land surface shaped by the action of erosion, especially by running water.

Erratic. A rock fragment carried by glacial ice, or by floating ice (ice-rafting), and subsequently deposited at some distance from the outcrop from which it was derived, and generally, though not necessarily, resting on bedrock or sediments of different lithology. Coarse fragments range in size from a pebble to a house-size block.

Escarpment. A relatively continuous and steep slope or cliff produced by erosion or faulting and that topographically interrupts or breaks the general continuity of more gently sloping land surfaces. The term is most commonly applied to cliffs produced by differential erosion. Synonym: "scarp."

Esker. A long, narrow, sinuous and steep-sided ridge composed of irregularly stratified sand and gravel deposited as the bed of a stream flowing in an ice tunnel within or below the ice (subglacial) or between ice walls on top of the ice of a wasting glacier, and left behind as high ground when the ice melted. Eskers range in length from less than a kilometer to more than 160 kilometers, and in height from 3 to 30 meters.

Fan (geomorphology). (a) A gently sloping, fan-shaped mass of detritus forming a section of a low-angle cone commonly at a place where there is a notable decrease in gradient; specifically an alluvial fan (not preferred–use alluvial fan). (b) A fan-shaped mass of congealed lava that formed on a steep slope by the continually changing direction of flow.

Fen Waterlogged, spongy ground containing alkaline decaying vegetation, characterized by reeds, that develops into peat. It sometimes occurs in sinkholes of karst regions.

Fertility, soil. The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.

Fibric soil material (peat). The least decomposed of all organic soil material. Peat contains a large amount of well preserved fiber that is readily identifiable according to botanical origin. Peat has the lowest bulk density and the highest water content at saturation of all organic soil material.

Fill. (a) Human-constructed deposits of natural earth materials (e.g., soil, gravel, rock) and waste materials (e.g., tailings or spoil from dredging) used to fill a depression, to extend shore land into a body of water, or in building dams. (b) Soil or loose rock used to raise the surface level of low-lying land, such as an embankment to fill a hollow or ravine in roads construction.

Fine loamy soil. Soil particle size class having more than 15 percent by weight particles of fine sand and coarser, including up to 75 mm size, and 18 to 35 percent clay by weight.

Fine textured soil. Sandy clay, silty clay, or clay.

Firm. A term of consistency pertaining to the ease of crumbling of moist soil under a moderate force applied slowly between thumb and forefinger.

Flat (geomorphology). (a)(adjective) Said of an area characterized by a continuous surface or stretch of land that is smooth, even, or horizontal, or nearly so, and that lacks any significant curvature, slope, elevations, or depressions. (b)(noun) An informal, generic term for a level or nearly level surface or small area of land marked by little or no local relief. (c)(not recommended) A nearly level region that visibly displays less relief than its surroundings.

Flood plain. The nearly level plain that borders a stream and is subject to inundation under flood-stage conditions unless protected artificially. It is usually a constructional landform built of sediment deposited during overflow and lateral migration of the streams.

Floor (geomorphology). (a) A general term for the nearly level, lower part of a basin or valley; (not preferred) refer to basin floor, valley floor. (b) The bed of any body of water; e.g., the nearly level surface beneath the water of a stream, lake, or ocean.

Flow (mass movement). A category of mass movement processes, associated sediments (flow deposit) and landforms characterized by slow to very rapid downslope movement of unconsolidated material which, whether saturated or comparatively dry, behaves much as a viscous fluid as it moves. Types of flows can be specified based on the dominant particle size of sediments (i.e. debris flow (e.g., lahar), earth flow (creep, mudflow), rock fragment flow (e.g., rockfall avalanche), debris avalanche].

Flowtill. A till, commonly supraglacial, that is modified and transported by plastic mass flow; also spelled flow till.

Fluvial. (adjective) Of or pertaining to rivers or streams; produced by stream or river action.

Foothills. A steeply sloping upland composed of hills with relief of 30 up to 300 meters and fringes a mountain range or high-plateau escarpment.

Foot slope. The hillslope profile position that forms the concave surface at the base of a hillslope. It is a transition zone between upslope sites of erosion and transport (shoulder, backslope) and downslope sites of deposition (toeslope).

Formation (stratigraphy). The basic lithostratigraphic unit in the local classification of rocks. A body of rock (commonly a sedimentary stratum or strata, but also igneous and metamorphic rocks) generally characterized by some degree of internal lithologic homogeneity or distinctive lithologic features (such as chemical

composition, structures, textures, or general kind of fossils), by a prevailing (but not necessarily tabular) shape, and is mappable at the earth's surface (at scales of the order of 1:25,000) or traceable in the subsurface. Formation may be combined into groups or subdivided into members.

Fragipan. A loamy, brittle subsurface horizon low in porosity and content of organic matter and low or moderate in clay but high in silt or very fine sand. A fragipan appears cemented and restricts roots. When dry, it is hard or very hard and has a higher bulk density than the horizon or horizons above. When moist, it tends to rupture suddenly under pressure rather than to deform slowly.

Frigid temperature regime. A frigid temperature regime is colder than a mesic temperature regime. A soil with a frigid temperature regime has a mean annual soil temperature lower than 8 degrees C, and the difference between mean summer and mean winter soil temperatures is more than 6 degrees C at a depth of 50 cm from the soil surface.

Friable. A term of consistency pertaining to the ease of crumbling of moist soil under a slight force applied between thumb and forefinger.

Frost action (in tables). Freezing and thawing of soil moisture. Frost action can damage roads, buildings and other structures, and plant roots.

Furrow. A linear or arcuate opening left in the soil after a plow or disk has opened a shallow channel at the soil surface. A shallow channel cut in the soil surface, usually between planted rows for controlling surface water and soil loss, or for conveying irrigation water.

Geomorphic component. A fundamental, three dimensional piece or area of a geomorphic setting (i.e., hills, mountains, terraces, flat plains) that has unique and prevailing kinetic energy dynamics and sediment transport conditions which result in their characteristic form, patterns of sedimentation and soil development.

Geomorphic surface. A mappable area of the earth's surface that has a common history; the area is of similar age and is formed by a set of processes during an episode of landscape evolution. A geomorphic surface can be erosional, constructional or both. The surface shape can be planar, concave, convex, or any combination of these.

Geomorphology. The science that treats the general configuration of the earth's surface; specifically the study of the classification, description, nature, origin, and development of landforms and their relationships to underlying structures, and of the history of geologic changes as recorded by these surface features. The term is especially applied to the genetic interpretation of landforms.

Glacial. (adjective) (a) Of or relating to the presence and activities of ice and glaciers, as in glacial erosion. (b) Pertaining to distinctive features and materials produced by or derived from glaciers and ice sheets, as in glacial lakes. (c) Pertaining to an ice age or region of glaciation.

Glacial lake. A lake that derives much or all of its water from the melting of glacier ice, fed by meltwater, and lying outside the glacier margins (e.g. proglacial lake) or lying on a glacier (e.g. ice-walled lake, ice-floored lake) and due to differential melting.

Glacial till (not recommended; use till). Till should only be used for describing glacial sediments, therefore "glacial till" is redundant.

Glaciation. The formation, movement and recession of glaciers or ice sheets. A collective term for the geologic processes of glacial activity, including erosion and deposition, and the resulting effects of such action on the earth's surface.

Glacier. (a) A large mass of ice formed, at least in part, on land by the compaction and recrystallization of snow, moving slowly by creep downslope or outward in all directions due to the stress of its own weight, and surviving from year to year. Included are small mountain glaciers as well as ice sheets continental in size, and ice shelves which float on the ocean but are fed in part by ice formed on land. (b)

A stream-like landform having the appearance of, or moving like a glacier; e.g. a rock glacier

Glaciofluvial deposit. Material moved by glaciers and subsequently sorted and deposited by streams flowing from the melting ice. The deposits are stratified and may occur in the form of outwash plains, valley trains, deltas, kames, eskers, and kame terraces.

Glaciolacustrine deposit. Material ranging from fine clay to sand derived from glaciers and deposited in glacial lakes by water originating mainly from the melting of glacial ice. Many are bedded or laminated with varves or rhythmites.

Grassed waterway. A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.

Gravel. Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.

Gravel pit. A depression, ditch or pit excavated to furnish gravel for roads or other construction purposes; a type of borrow pit.

Gravelly soil material. Material that is 15 to 35 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.

Ground moraine. A layer of poorly sorted rock and mineral debris (till) dragged along, in, on, or beneath a glacier, and deposited by processes including basal lodgement and release from downwasting stagnant ice by ablation.

Gully. A small channel with steep sides caused by erosion and cut in unconsolidated materials by concentrated but intermittent flow of water usually during and immediately following heavy rains or ice/snow melt. A gully generally is an obstacle to wheeled vehicles and too deep (e.g., > 0.5 m) to be obliterated by ordinary tillage; (a rill is of lesser depth and can be smoothed over by ordinary tillage).

Hard bedrock. Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.

Head slope. A geomorphic component of hills consisting of a laterally concave area of a hillside, especially at the head of a drainageway. The overland waterflow is converging.

Hemic soil material (mucky peat). Organic soil material intermediate in degree of decomposition between the less decomposed fibric material and the more decomposed sapric material.

Herbaceous peat (Soil Taxonomy). An accumulation of organic material, decomposed to some degree, that is predominantly the remains of sedges, reeds, cattails and other herbaceous plants.

Hill. A generic term for an elevated area of the land surface, rising at least 30 m (100 ft.) to as much as 300 meters (approx. 1,000 ft.) above surrounding lowlands, usually with a nominal summit area relative to bounding slopes, a well-defined, rounded outline and slopes that generally exceed 15 percent. A hill can occur as a single, isolated mass or in a group. A hill can be further specified based on the magnitude of local relief: low hill (30–90 m) or high hill (90-300 m). Informal distinctions between a hill and a mountain are often arbitrary and dependent on local convention.

Hills. A landscape dominated by hills and associated valleys.

Hillslope. A generic term for the steeper part of a hill between its summit and the drainage line, valley flat, or depression floor at the base of the hill.

Holocene. The epoch of the Quaternary Period of geologic time following the Pleistocene Epoch (from the present to about 10 to 12 thousand years ago); also corresponding (time-stratigraphic) “series” of earth materials.

Horizon, soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of

soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. An explanation of the subdivisions is given in the “Soil Survey Manual.” The major horizons of mineral soil are as follows:

*O horizon.*An organic layer of fresh and decaying plant residue.

A horizon.—The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon, most of which was originally part of a B horizon.

E horizon.—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.

B horizon.—The mineral horizon below an A horizon. The B horizon is in part a layer of transition from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics, such as (1) accumulation of clay, sesquioxides, humus, or a combination of these; (2) prismatic or blocky structure; (3) redder or browner colors than those in the A horizon; or (4) a combination of these.

C horizon.—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the overlying soil material. The material of a C horizon may be either like or unlike that in which the solum formed. If the material is known to differ from that in the solum, an Arabic numeral, commonly a 2, precedes the letter C.

Cr horizon.—Soft, consolidated bedrock beneath the soil.

R layer.—Consolidated bedrock beneath the soil. The bedrock commonly underlies a C horizon, but it can be directly below an A or a B horizon.

Humus. The well decomposed, more or less stable part of the organic matter in mineral soils.

Hydrologic soil groups. Refers to soils grouped according to their runoff potential. The soil properties that influence this potential are those that affect the minimum rate of water infiltration on a bare soil during periods after prolonged wetting when the soil is not frozen. These properties are depth to a seasonal high water table, the infiltration rate and permeability after prolonged wetting, and depth to a very slowly permeable layer. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff.

Igneous rock. Rock formed by solidification from a molten or partially molten state; major varieties include plutonic and volcanic rocks. Examples: andesite, basalt, granite.

Iron depletions. Low-chroma zones having a low content of iron and manganese oxide because of chemical reduction and removal, but having a clay content similar to that of the adjacent matrix. A type of redoximorphic depletion.

Interbedded. Said of beds lying between or alternating with others of different character; especially said of rock material or sediments laid down in sequence between other beds, such as “interbedded” sands and gravels.

Interdrumlin. The concave to relatively flat bottomed, roughly linear depressions ranging from small saddles or swales to small valleys that separate drumlins or drumlinoid ridges in drumlin fields. Streams, if present, have not had a dominant impact on the formation of the depression.

Interfluve. An elevated area between two drainageways that sheds water to those drainageways.

Intermittent stream. A stream, or reach of a stream, that does not flow year-round (commonly dry for 3 or more months out of 12) and whose channel is generally below the local water table; it flows only when it receives (a) base flow (i.e. solely during wet periods), or (b) ground-water discharge or protracted contributions from melting snow or other erratic surface and shallow subsurface sources.

Kame. A low mound, knob, hummock, or short irregular ridge, composed of stratified sand and gravel deposited by a subglacial stream as a fan or delta at the margin of a melting glacier; by a supraglacial stream in a low place or hole on the surface of the glacier; or as a ponded deposit on the surface or at the margin of stagnant ice.

Kame moraine. (a) An end moraine that contains numerous kames. (b) A group of kames along the front of a stagnant glacier, commonly comprising the slumped or erosional remnants of a formerly continuous outwash plain built up over the foot of rapidly wasting or stagnant ice.

Kame terrace. A terrace-like ridge consisting of stratified sand and gravel (a) deposited by a meltwater stream flowing between a melting glacier and a higher valley wall or lateral moraine, and (b) left standing after the disappearance of the ice. It is commonly pitted with “kettles” and has an irregular ice-contact slope.

Karst. A kind of topography formed in limestone, gypsum, or other soluble rocks by dissolution, and that is characterized by closed depressions, sinkholes, caves, and underground drainage. Various types of karst can be recognized depending upon the dominant surface features: karst dominated by closed depressions (*sinkhole karst*–temperate climates; *cockpit karst*–humid tropical climates), closed depressions and large rivers (*fluviokarst*), bare rock dominated by dissolution joints (*pavement karst*), tropical cone-, tower- or domed-hills (*kegel karst*), etc.

Kettle. A steep-sided, bowl-shaped depression commonly without surface drainage (closed depression) in drift deposits, often containing a lake or swamp, and formed by the melting of a large, detached block of stagnant ice that had been wholly or partly buried in the drift. Kettles range in depth from 1 to tens of meters, and with diameters up to 13 km.

Knoll. A small, low, rounded hill rising above adjacent landforms.

K_{sat}. Saturated hydraulic conductivity. (See Permeability.)

Lacustrine deposit. Clastic sediments and chemical precipitates deposited in lakes.

Lake(water). An inland body of permanently standing water fresh or saline, occupying a depression on the earth’s surface, generally of appreciable size (larger than a pond) and too deep to permit vegetation (excluding subaqueous vegetation) to take not completely across the expanse of water.

Lake plain. A nearly level surface marking the floor of an extinct lake filled by well-sorted, generally fine-textured, stratified deposits, commonly containing varves.

Lamella. (a) (soil) A thin (less than 7.5 cm thick), discontinuous or continuous, generally horizontal layer of fine material (especially clay and iron oxides) that has been pedogenically concentrated (illuviated) within a coarser (e.g. sandy), eluviated layer (several centimeters to several decimeters thick). (b)(mineralogy) A thin scale, leaf, lamina, or layer, e.g. one of the units of a polysynthetically twinned mineral, such as plagioclase.

Landform. Any physical, recognizable form or feature on the earth’s surface, having a characteristic shape and range in composition, and produced by natural causes; it can span a wide range in size (e.g., dune encompasses both parabolic dune, which can be several tens-of-meters across, as well as *seif dune* which can be up to 100 kilometers long. Landforms provide an empirical description of similar portions of the earth’s surface.

Landscape (soils). An assemblage, group, or family of spatially related, natural landforms over a relatively large area; the land surface which the eye can comprehend in a single view.

Landslide (mass movement). A general, encompassing term for most types of mass movement landforms and processes involving the downslope transport and outward deposition of soil and rock materials, caused by gravitational forces and which may or may not involve saturated materials. Names of landslide types generally reflect the dominant process and/or the resultant landform. The main

operational categories of mass movement are *fall* (rockfall, soil fall, topple), *slide* (rotational landslide, block glide, debris slide, lateral spread), *flow* (rock fragment flow, especially rockfall avalanche, debris avalanche, debris flow (e.g., lahar), earthflow (creep, mudflow), and *complex landslides*.

Large stones (in tables). Rock fragments 3 inches (7.6 centimeters) or more across. Large stones adversely affect the specified use of the soil.

Lateral moraine. A ridge-like moraine carried on and deposited at the side margin of a valley glacier. It is composed chiefly of rock fragments derived from valley walls by glacial abrasion and plucking, or colluvial accumulation from adjacent slopes.

Ledge. (a) A narrow shelf or projection of rock, much longer than wide, formed on a rock wall or cliff face, as along a coast by differential wave action on softer rocks; erosion is by combined biological and chemical weathering. (b) A rocky outcrop; solid rock. (c) A shelf-like quarry exposure or natural rock outcrop.

Leveled land. A land area, usually a field, that has been mechanically flattened or smoothed to facilitate management practices such as flood irrigation; as a result the natural soil has been partially or completely modified (e.g., truncated or buried).

Limestone. A sedimentary rock consisting chiefly (more than 50 percent) of calcium carbonate, primarily in the form of calcite. Limestones are usually formed by a combination of organic and inorganic processes and include chemical and clastic (soluble and insoluble) constituents; many contain fossils.

Liquid limit. The moisture content at which the soil passes from a plastic to a liquid state.

Loam. Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.

Lodgement till. A basal till commonly characterized by compact, fissile (“platy”) structure and containing coarse fragments oriented with their long axes generally parallel to the direction of ice movement.

Log landing. A comparatively level area, usually with road access, constructed or cut into steeper slopes and used for sorting logs during timber harvest operations.

Low strength. The soil is not strong enough to support loads.

Marine deposit. Sediments (predominantly sands, silts and clays) of marine origin; laid down in the salty waters of an ocean.

Marsh. Periodically wet or continually flooded areas with the surface not deeply submerged. Covered dominantly with sedges, cattails, rushes, or other hydrophytic plants.

Mass movement. A generic term for any process or sediments (mass movement deposit) resulting from the dislodgment and downslope transport of soil and rock material as a unit under direct gravitational stress. The process includes slow displacements such as creep and solifluction, and rapid movements such as landslides, rock slides, and falls, earthflows, debris flows, and avalanches. Agents of fluid transport (water, ice, air) may play an important, if subordinate role in the process.

Meander (streams). One of a series of regular freely developing sinuous curves, bends, loops, turns, or windings in the course of a stream.

Medium textured soil. Very fine sandy loam, loam, silt loam, or silt.

Mesic temperature regime. A mesic temperature regime is warmer than a frigid temperature regime. A soil with a mesic temperature regime has a mean annual soil temperature 8 degrees C or higher, but lower than 15 degrees C (590 F), and the difference between mean summer and mean winter soil temperatures is more than 6 degrees C at a depth of 50 cm from the soil surface.

Metamorphic rock. Rock of any origin altered in mineralogical composition, chemical composition, or structure by heat, pressure, and movement at depth in the earth’s

crust. Nearly all such rocks are crystalline. Examples: schist, gneiss, quartzite, slate, marble.

Microrelief. (a)(soil survey) Slight variations in the height of a land surface that are too small or intricate to delineate on a topographic or soils map at commonly used map scales (e.g. 1:24,000 through 1:10,000). Examples include micro-high, micro-low. (b)(not preferred-refer to microfeature) Generically refers to local, slight irregularities in form and height of a land surface that are superimposed upon a larger landform, including such features as low mounds, swales, and shallow pits.

Mineral soil. Soil that is mainly mineral material and low in organic material. Its bulk density is more than that of organic soil.

Mine spoil or earthy fill (soil survey). An accumulation of displaced earthy material, rock, or other waste material removed during mining or excavation.

Miscellaneous areas. Areas that have little or no soil material, and support little or no vegetation.

Moderately coarse textured soil. Coarse sandy loam, sandy loam, or fine sandy loam.

Moderately fine textured soil. Clay loam, sandy clay loam, or silty clay loam.

Moraine (glacial geology). (a)(material) A mound, ridge, or other topographically distinct accumulation of unsorted, unstratified glacial drift, predominantly till, deposited primarily by the direct action of glacier ice, in a variety of landforms. (b)(landform) A general term for a landform composed mainly of till that has been deposited by a glacier; a kame moraine is a type of moraine similar in exterior form to other types of moraines but composed mainly of stratified outwash materials. Types of moraine include: disintegration, end, ground, kame, lateral, recessional, and terminal.

Mountain. A generic term for an elevated area of the land surface, rising more than 300 meters above surrounding lowlands, usually with a nominal summit area relative to bounding slopes and generally with steep sides (greater than 25 percent slope) with or without considerable bare-rock exposed. A mountain can occur as a single, isolated mass or in a group forming a chain or range. Mountains are primarily formed by tectonic activity and/or volcanic action and secondarily by differential erosion.

Mountaintop. A geomorphic component of mountains consisting of the uppermost, comparatively level or gently sloped area of mountains, characterized by relatively short, simple slopes composed of bare rock, residuum, or short-transport colluvial sediments. In humid environments, mountaintop soils can be quite thick and well developed.

Muck. Unconsolidated soil material consisting primarily of highly decomposed organic material in which the original plant parts are not recognizable (i.e. “sapric” in Soil Taxonomy). It generally contains more mineral matter and is usually darker in color, than peat.

Mucky peat. Unconsolidated soil material consisting primarily of organic matter that is in an intermediate stage of decomposition such that a significant part of the original material can be recognized and a significant part of the material can not be recognized (i.e. “hemic” in Soil Taxonomy).

Munsell notation. A designation of color by degrees of three simple variables—hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.

Natural levee. A long, broad low ridge or embankment of sand and coarse silt, built by a stream on its flood plain and along both sides of its channel, especially in time of flood when water overflowing the normal banks is forced to deposit the coarsest part of its load. It has a gentle slope away from the river and toward the surrounding floodplain, and its highest elevation is closest to the river bank.

Nose slope. A geomorphic component of hills consisting of the projecting end (laterally convex area) of a hillside. The overland waterflow is predominantly divergent.

Organic materials (soil survey). Unconsolidated sediments or deposits in which carbon is an essential, substantial component. Several types of organic materials (deposits) can be identified based on the composition of the dominant fibers (grassy organic materials, herbaceous organic materials, mossy organic materials, woody organic materials).

Organic matter. Plant and animal residue in the soil in various stages of decomposition.

Ortstein. A cemented zone of accumulated organic materials, aluminum and iron that was translocated from a horizon above.

Outcrop (soil survey). An actual exposure of bedrock at or above the ground surface.

Outwash (glacial geology). Stratified and sorted sediments (chiefly sand and gravel) removed or "washed out" from a glacier by melt-water streams and deposited in front of or beyond the end moraine or the margin of a glacier. The coarser material is deposited nearer to the ice.

Outwash fan. A fan-shaped accumulation of outwash deposited by meltwater streams in front of the end or recessional moraine of a glacier. Coalescing outwash fans form an outwash plain.

Outwash plain. An extensive lowland area of coarse textured, glaciofluvial material. An outwash plain is commonly smooth; where pitted, due to melt-out of incorporated ice masses (pitted outwash plain), it is generally low in relief and largely retains it's original gradient.

Outwash terrace. A flat-topped bank of outwash with an abrupt outer face (scarp or riser) extending along a valley downstream from an outwash plain or terminal moraine; a valley train deposit.

Overburden. (a) The upper part of a sedimentary deposit, compressing and consolidating the materials below. (b) The loose soil or other unconsolidated material overlying bedrock, either transported or formed in place (synonym for regolith).

Oxbow. A closely looping stream meander having an extreme curvature such that only a neck of land is left between the two parts of the stream. (colloquial: northeastern U.S.A.) the land enclosed, or partly enclosed, within an oxbow.

Oxbow lake. The crescent-shaped, often ephemeral body of standing water situated by the side of a stream in the abandoned channel (oxbow) of a meander after the stream formed a neck cutoff and the ends of the original bend were silted up.

Parent material. The unconsolidated and more or less chemically weathered mineral or organic matter from which a soil's solum is developed by pedogenic processes.

Peat. Unconsolidated soil material consisting largely of undecomposed, or slightly decomposed, organic matter (i.e. "fibric" in Soil Taxonomy) accumulated under conditions of excessive moisture.

Pedon. The smallest volume that can be called "a soil." A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.

Perennial stream. A stream or reach of a stream that flows continuously throughout the year and whose surface is generally lower than the water table adjacent to the region adjoining the stream.

Permeability. The quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality. In soil physics, the rate is referred to as "saturated hydraulic conductivity," which is defined in the "Soil Survey Manual." In line with conventional usage in the engineering profession and with traditional

usage in published soil surveys, this rate of flow continues to be expressed as "permeability." Terms describing permeability, measured in inches per hour, are as follows:

Very slow less than	0.06 inch
Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	more than 20 inches

Phase, soil. A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

pH value. A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

Physiographic province. A region of which all parts are similar in geologic structure and climate, and which has consequently had a unified geomorphic history; a region whose pattern of relief features or landforms differ significantly from that of adjacent regions. Examples: the Valley and Ridge, Blue Ridge, and Piedmont provinces in the eastern U.S.A., and the Basin and Range, Rocky Mountains, and Great Plains provinces in the western U.S.A.

Pitted outwash. Outwash deposits with surficial pits or kettles, produced by the partial or complete burial of glacial ice by outwash and the subsequent thaw of the ice and collapse of the surficial materials.

Pitted outwash terrace. A relict glaciofluvial terrace that retains its original attitude, composed of undistorted outwash sediments and depositional structures and whose surface is pock-marked with numerous potholes or kettle depressions.

Plain. A general term referring to any flat, lowland area, large or small, at a low elevation. Specifically, any extensive region of comparatively smooth and level gently undulating land. A plain has few or no prominent hills or valleys but sometimes has considerable slope, and usually occurs at low elevation relative to surrounding areas. Where dissected, remnants of a plain can form the local uplands. A plain may be forested or bare of trees and may be formed by deposition or erosion.

Plasticity index. The numerical difference between the liquid limit and the plastic limit; the range of moisture content within which the soil remains plastic.

Plastic limit. The moisture content at which a soil changes from semisolid to plastic.

Plateau (geomorphology). A comparatively flat area of great extent and elevation; specifically an extensive land region considerably elevated (more than 100 meters) above adjacent lower-lying terrain, and is commonly limited on at least one side by an abrupt descent, has a flat or nearly level surface. A comparatively large part of a plateau surface is near summit level.

Pleistocene. The epoch of the Quaternary Period of geologic time (from about 10 to 12 thousand to 1.6 million years ago), following the Pliocene Epoch and preceding the Holocene also the corresponding (time-stratigraphic) "series" of earth materials.

Pond. (a) A natural body of standing fresh water occupying a small surface depression, usually smaller than a lake and larger than a pool. (b) A small artificial body of water, used as a source of water.

Pothole (glacial geology). A type of small pit or closed depression (1 to 15 meters deep), generally circular or elliptical, occurring in an outwash plain, a recessional moraine, or a till plain.

Productivity, soil. The capability of a soil for producing a specified plant or sequence of plants under specific management.

Profile, soil. A vertical section of the soil extending through all its horizons and into the parent material.

Proglacial lake. A type of glacial lake which formed just beyond the margin of an advancing or retreating glacier; generally in direct contact with the ice.

Proper grazing use. Grazing at an intensity that maintains enough cover to protect the soil and maintain or improve the quantity and quality of the desirable vegetation. This practice increases the vigor and reproduction capacity of the key plants and promotes the accumulation of litter and mulch necessary to conserve soil and water.

Quarry. Excavation areas, open to the sky, usually for the extraction of stone.

Quaternary. The period of the Cenozoic Era of geologic time, extending from the end of the Tertiary Period (about 1.6 million years ago) to the present and comprising two epochs, the Pleistocene (Ice Age) and Holocene (Recent); also, the corresponding (time-stratigraphic) “series” of earth materials.

Railroad bed. The trace or track of a railroad route, commonly raised slightly above the adjacent land, and composed mostly of earthy materials (gravel, rock fragments, etc.). Abandoned or reclaimed beds may no longer be topographically or visually distinct, but the materials used to construct them may still be a significant portion of the soil zone.

Reaction, soil. A measure of acidity or alkalinity of a soil, expressed in pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Ultra acid	less than 3.5
Extremely acid	3.5 to 4.4
Very strongly acid	4.5 to 5.0
Strongly acid	5.1 to 5.5
Moderately acid	5.6 to 6.0
Slightly acid	6.1 to 6.5
Neutral	6.6 to 7.3
Slightly alkaline	7.4 to 7.8
Moderately alkaline	7.9 to 8.4
Strongly alkaline	8.5 to 9.0
Very strongly alkaline	9.1 and higher

Reclaimed land. A land area composed of earthy fill material that has been placed and shaped to approximate natural contours, commonly part of land-reclamation efforts after mining operations.

Redoximorphic concentrations. Nodules, concretions, soft masses, pore linings, and other features resulting from the accumulation of iron or manganese oxide. An indication of chemical reduction and oxidation resulting from saturation.

Redoximorphic depletions. Low-chroma zones from which iron and manganese oxide or a combination of iron and manganese oxide and clay has been removed. These zones are indications of the chemical reduction of iron resulting from saturation.

Redoximorphic features. Redoximorphic concentrations, redoximorphic depletions, reduced matrices, a positive reaction to alpha, alpha-dipyridyl, and other features indicating the chemical reduction and oxidation of iron and manganese compounds resulting from saturation.

Reduced matrix. A soil matrix that has low chroma in situ because of chemically reduced iron (Fe II). The chemical reduction results from nearly continuous wetness. The matrix undergoes a change in hue or chroma within 30 minutes after exposure to air as the iron is oxidized (Fe III). A type of redoximorphic feature.

Regolith. All unconsolidated earth materials above the solid bedrock. It includes material weathered in place from all kinds of bedrock and alluvial, glacial, eolian, lacustrine, and pyroclastic deposits. Soil scientists regard as soil only that part of the regolith that is modified by organisms and soil-forming processes. Most engineers describe the whole regolith, even to a great depth, as “soil.”

Relief. The relative difference in elevation between the upland summits and the lowlands or valleys of a given region.

Ridge. A long, narrow elevation of the land surface, usually sharp crested with steep sides and forming an extended upland between valleys. The term is used in areas of both hill and mountain relief.

Rill. A very small channel with steep sides caused by erosion and cut in unconsolidated materials by concentrated but intermittent flow of water, usually during and immediately following moderate rains or after ice/snow melt. Generally, a rill is not an obstacle to wheeled vehicles and is shallow enough (e.g., less than 0.5 m) to be obliterated by ordinary tillage.

River (streams). (a) A general term for a natural, freshwater surface stream of considerable volume and generally with a permanent base flow, moving in a defined channel toward a larger river, lake, or sea. (b) (not recommended: colloquial-New England, USA) A small watercourse which elsewhere in the USA is known as a *creek*.

River valley. An elongate depression of the earth's surface; carved by a river during the course of its development.

Road bed. The trace or track of a wheeled vehicle route that may or may not be raised slightly above the adjacent land, and composed of earthy fill material (gravel, rock fragments, etc.) or local soil material. Traffic can alter various soil properties primarily by compaction. Abandoned or reclaimed beds may no longer be topographically or visually distinct. However, materials used to construct beds or changes in soil properties may continue to have a significant impact on soil management or plant growth.

Rock fragments. Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.

Road cut. A sloping surface produced by mechanical means during road construction. It is commonly on the uphill side of the road.

Root zone. The part of the soil that can be penetrated by plant roots.

Runoff. The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is called ground-water runoff or seepage flow from ground water.

Sand. As a soil separate, individual rock or mineral fragments from 0.05 millimeter to 2.0 millimeters in diameter. Most sand grains consist of quartz. As a soil textural class, a soil that is 85 percent or more sand and not more than 10 percent clay.

Sand pit. A depression, ditch or pit excavated to furnish sand for roads or other construction purposes off-site; a type of borrow pit.

Sand plain. (a) (geomorphology) A sand-covered plain which may originate by deflation of sand dunes, and whose lower limit of erosion is governed by the ground-water level. Also spelled *sandplain*. (b)(glacial geology)(not preferred–refer to *sandy outwash plain*) A small outwash plain composed chiefly of sand deposited by meltwater streams flowing from a glacier.

Sandstone. Sedimentary rock containing dominantly sand-size clastic particles.

Sanitary landfill. A land area where municipal solid waste is buried in a manner engineered to minimize environmental degradation. Commonly the waste is compacted and ultimately covered with soil or other earthy material.

Sapric soil material (muck). The most highly decomposed of all organic soil material. Muck has the least amount of plant fiber, the highest bulk density, and the lowest water content at saturation of all organic soil material.

Saturation. Wetness characterized by zero or positive pressure of the soil water. Under conditions of saturation, the water will flow from the soil matrix into an unlined auger hole.

Scarp. An escarpment, cliff, or steep slope of some extent along the margin of a plateau, mesa, terrace, or structural bench. A scarp may be of any height.

Seasonal high water table. A zone of saturation at the highest average depth during the wettest season. It is at least six inches thick, persists in the soil for more than a few weeks, and is within six feet of the soil surface. The depth to the seasonal high water table implies the degree of wetness in the soil.

Sediment. Material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by water, wind, ice or mass-wasting and has come to rest on the earth's surface either above or below sea level. Sediment in a broad sense also includes materials precipitated from solution or emplaced by explosive volcanism, as well as organic remains; e.g., peat that has not been subject to appreciable transport.

Sedimentary peat (Soil Taxonomy). An accumulation of organic material that is predominantly the remains of floating aquatic plants (e.g. algae) and the remains and fecal material of aquatic animals, including coprogenous earth.

Sedimentary rock. A consolidated deposit of clastic particles, chemical precipitates, or organic remains accumulated at or near the surface of the earth under "normal" low temperature and pressure conditions. Sedimentary rocks include consolidated equivalents of alluvium, colluvium, drift, and eolian, lacustrine, marine deposits; e.g., sandstone, siltstone, mudstone, clay-stone, shale, conglomerate, limestone, dolomite, coal, etc.

Seep. (noun) An area, generally small, where water or oil percolates slowly to the land surface. For water, it may be considered as a seepage spring, but it is used by some for flows too small to be considered as springs.

Series, soil.A group of soils that have profiles that are almost alike. All the soils of a given series have horizons that are similar in composition, thickness, and arrangement.

Sewage lagoon. Any artificial pond or other water-filled excavation for the natural oxidation of sewage or disposal of animal manure.

Shale. Sedimentary rock formed by induration of a clay, silty clay, or silty clay loam deposit and having the tendency to split into thin layers, i.e., fissility.

Shoulder. The hillslope profile position that forms the convex, erosional surface near the top of a hillslope. If present, it comprises the transition zone from summit to backslope.

Shrink-swell (in tables). The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.

Side slope. (geomorphology) A geomorphic component of hills consisting of a laterally planar area of a hillside, resulting in predominantly parallel overland water flow (e.g., sheet wash); contour lines generally form straight lines. Side slopes are dominated by colluvium and slope wash sediments. Slope complexity (downslope shape) can range from simple to complex. The slope bounding a drainageway and lying between the drainageway and the adjacent interfluve. It is generally linear along the slope width.

Silt. As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.

Siltstone. An indurated silt having the texture and composition of shale but lacking its fine lamination or fissility; a massive mudstone in which silt predominates over clay.

Similar soils. Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.

Sinkhole. A closed, circular or elliptical depression, commonly funnel-shaped, characterized by subsurface drainage and formed either by dissolution of the surface of underlying bedrock (e.g., limestone, gypsum, salt) (*solution sinkhole*) or by collapse of underlying caves within bedrock (*collapse sinkhole*); diameters range from a few meters to as much as 1000 m. Complexes of sinkholes in carbonate-rock terrain are the main components of karst topography.

Skid trail. Irregularly spaced, roughly linear to radial depressions or small mounds associated with shallow to deep soil disturbance caused by dragging logs across a slope from where they were cut down to a central processing area such as a log landing during timber harvest operations.

Site index. A designation of the quality of a forest site based on the height of the dominant stand at an arbitrarily chosen age. For example, if the average height attained by dominant and codominant trees in a fully stocked stand at the age of 50 years is 75 feet, the site index is 75.

Slope(also called slope gradient or gradient). The inclination of the land surface from the horizontal. Percent slope is the vertical distance divided by the horizontal distance, then multiplied by 100.

Series, soil. A group of soils that have profiles that are almost alike, except for differences in texture of the surface layer. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.

Small stones (in tables). Rock fragments less than 3 inches (7.6 centimeters) in diameter. Small stones adversely affect the specified use of the soil.

Soft bedrock. Bedrock that can be excavated with trenching machines, backhoes, small rippers, and other equipment commonly used in construction.

Soil. A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief over periods of time.

Solum. The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the material below the solum. The living roots and plant and animal activities are largely confined to the solum.

Specific gravity. The ratio of a material's density to that of water (material weight in air divided by (weight in air minus weight in water). Used to differentiate different kinds of volcaniclastics and other materials.

Spodic horizon. A dark reddish brown or reddish brown soil layer with fine sandy loam or coarser texture. This layer is a result of illuviated organic matter and aluminum, with or without iron.

Spoil pile. (a) A bank, mound, or other artificial accumulation composed of spoil; e.g., an embankment of earthy material dredged from a channel and deposited alongside it. (b) A pile of refuse material from an excavation or mining operation; e.g., a pile of dirt removed from, and stacked at the surface of a mine in a conical heap or in layers.

Stones. Rock fragments 10 to 24 inches (25 to 60 centimeters) in diameter if rounded or 15 to 24 inches (38 to 60 centimeters) in length if flat.

Stratified. (adjective) Formed, arranged, or laid down in layers. The term refers to geologic deposits. Layers in soils that result from the processes of soil formation are called horizons; those inherited from the parent material are called strata.

Stratigraphy. The branch of geology that deals with the definition and interpretation of layered earth materials; the conditions of their formation; their character, arrangement, sequence, age, and distribution; and especially their correlation by the use of fossils and other means. The term is applied both to the sum of the characteristics listed and a study of these characteristics.

Stream. Any body of running water that moves under gravity to progressively lower levels, in a relatively narrow but clearly defined channel on the ground surface, in a subterranean cavern, or beneath or in a glacier. It is a mixture of water and dissolved, suspended, or entrained matter.

Stream terrace. One or a series of platforms in a stream valley, flanking and more or less parallel to the stream channel, originally formed near the level of the stream, and representing the remnants of an abandoned flood plain, stream bed, or valley floor produced during a former state of fluvial erosion or deposition (i.e., currently very rarely or never floods).

Stripcropping. Growing crops in a systematic arrangement of strips or bands that provide vegetative barriers to wind erosion and water erosion.

Structure, soil. The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are—*platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single grained* (each grain by itself, as in dune sand) or *massive* (the particles adhering without any regular cleavage, as in many hardpans).

Subaqueous. (adjective) Said of conditions and processes, or of features or deposits, that exist or operate in or under water, especially fresh water, as in a lake or stream.

Subglacial. (a) Formed or accumulated in or by the bottom parts of a glacier or ice sheet; said of meltwater streams, till, moraine, etc. (b) Pertaining to the area immediately beneath a glacier, as subglacial eruption or subglacial drainage.

Subglacial till. Till deposited in or by the bottom parts of a glacier or ice sheet; types include lodgement till, subglacial flow till; synonym (not preferred; obsolete): basal till.

Subsoil. Technically, the B horizon; roughly, the part of the solum below plow depth.

Substratum. The part of the soil below the solum.

Subsurface layer. Technically, the E horizon. Generally refers to a leached horizon lighter in color and lower in content of organic matter than the overlying surface layer.

Summit. (a) The topographically highest position of a hillslope profile with a nearly level (planar or only slightly convex) surface. (b) A general term for the top, or highest area of a landform such as a hill, mountain, or tableland. It usually refers to a high interfluve area of relatively gentle slope that is flanked by steeper slopes, e.g., mountain fronts or tableland escarpments.

Surface layer. The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the “plow layer,” or the “Ap horizon.”

Surface mine. A depression, open to the sky, resulting from the surface extraction of earthy material (e.g. soil / fill) or bedrock material (e.g. coal).

Surface soil. The A, E, AB, and EB horizons, considered collectively. It includes all subdivisions of these horizons.

Swale. A shallow, open depression in unconsolidated materials which lacks a defined channel but can funnel overland or subsurface flow into a drainageway. Soils in swales tend to be more moist and thicker compared to surrounding soils.

Swamp. An area of low, saturated ground, intermittently or permanently covered with water, and predominantly vegetated by shrubs and trees, with or without the accumulation of peat. (term is used in catena diagram 10/04)

Taxadjuncts. Soils that cannot be classified in a series recognized in the classification system. Such soils are named for a series they strongly resemble and are designated as taxadjuncts to that series because they differ in ways too small to be of consequence in interpreting their use and behavior. Soils are recognized as

taxadjuncts only when one or more of their characteristics are slightly outside the range defined for the family of the series for which the soils are named.

Terminal moraine. An end moraine that marks the farthest advance of a glacier and usually has the form of a massive arcuate or concentric ridge, or complex of ridges, underlain by till and other drift types.

Terrace. (geomorphology) A step-like surface, bordering a valley floor or shoreline, that represents the former position of a flood plain, or lake or sea shore. The term is usually applied to both the relatively flat summit surface (tread), cut or built by stream or wave action, and the steeper descending slope (scarp, riser), graded to a lower base level of erosion. (soil survey) Practically, terraces are considered to be generally flat alluvial areas above the 100 year flood stage.

Texture, soil. The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand, loamy sand, sandy loam, loam, silt loam, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay,* and *clay*. The sand, loamy sand, and sandy loam classes may be further divided by specifying "coarse," "fine," or "very fine."

Till. (glacial) Dominantly unsorted and unstratified drift, generally unconsolidated deposited directly by a glacier without subsequent reworking by meltwater, and consisting of a heterogeneous mixture of clay, silt, sand, gravel, stones, and boulders; rock fragments of various lithologies are imbedded within a finer matrix that can range from clay to sandy loam.

Till plain. An extensive, flat to gently undulating area underlain predominantly by till and bounded on the distal end by subordinate recessional or end moraines.

Toe. (mass movement) The lowest, usually curved margin of displaced material of a landslide, most distant from the main scarp. Commonly it has an irregular surface that has ripples and may be breached by radial cracks or gaps.

Toeslope. The hillslope position that forms the gently inclined surface at the base of a hillslope. Toeslopes in profile are commonly gentle and linear, and are constructional surfaces forming the lower part of a hill-slope continuum that grades to valley or closed-depression floors.

Topography. The relative position and elevations of the natural or manmade features of an area that describe the configuration of its surface.

Topsoil. The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining.

Tree-throw. (not preferred) see tree-tip, tree-tip mound, tree-tip pit.

Tree-tip. The process of uprooting and tipping over of trees by strong winds, commonly resulting in a small depression from which the root-ball is displaced and an adjacent mound from the sediments subsequently sloughed from the root ball. Most prevalent in shallow forested soils over a restrictive layer (e.g. bedrock); also called tree-throw, windthrow.

Tree-tip mound. The small mound of debris sloughed from the root plate (root ball) of a tipped-over tree. Sometimes called a cradle knoll (not recommended). Local soil horizons are commonly obliterated and result in heterogeneous strata.

Tree-tip pit. The small pit or depression resulting from an area vacated by the root plate (ball) resulting from tree-tip ("tree-throw"). Such pits are commonly adjacent to small mounds composed of the displaced material. Subsequent infilling commonly results in a heterogeneous soil matrix, that may or may not include a stone line that lines the depression.

Truncated soil. Soil that has had part or all of the upper soil horizon(s) removed by erosion, excavation, etc.

Undifferentiated soil map unit. A map unit of two or more soils or miscellaneous areas that could be mapped individually, but were mapped as one unit because of similar interpretations for use and management.

Upland (geomorphology). An informal, general term for (a) the higher ground of a region, in contrast with a low-lying, adjacent land such as a valley or plain. (b) Land at a higher elevation than the flood plain or low stream terrace; land above the footslope zone of the hillslope continuum.

Valley. An elongate, relatively large, externally drained depression of the earth's surface that is primarily developed by stream erosion or glacial activity.

Valley floor. A general term for the nearly level to gently sloping, lowest surface of a valley. Landforms include axial stream channels, the flood plain, flood-plain steps, and, in some areas, low terrace surfaces.

Valley side. The sloping to very steep surfaces between the valley floor and summits of adjacent uplands. Well-defined, steep valley sides have been termed valley walls (not recommended). Note: Scale, relief, and perspective may require use of closely related terms such as hill slope or mountain slope.

Valley wall. (not recommended) use valley side.

Varve. A sedimentary layer, lamina, or sequence of laminae, deposited in a body of still water within 1 year; specifically, a thin pair of graded glaciolacustrine layers seasonally deposited, usually by meltwater streams, in a glacial lake or other body of still water in front of a glacier.

Water (soil survey). A generic map unit for any permanent, open body of water (pond, lake, reservoir, etc.) that does not support rooted plants.

Water bars. Smooth, shallow ditches or depressional areas that are excavated at an angle across a sloping road. They are used to reduce the downward velocity of water and divert it off and away from the road surface. Water bars can easily be driven over if constructed properly.

Waterway. (a) A general term for a way or channel, either natural (as a river) or artificial (as a canal), for conducting the flow of water. (b) A navigable body or stretch of water available for passage; a watercourse.

Weathering. All physical disintegration, chemical decomposition, and biologically induced changes in rocks or other deposits at or near the earth's surface by atmospheric or biologic agents or circulating surface waters with essentially no transport of the altered material. These changes result in disintegration and decomposition of the material.

Windthrow. The uprooting and tipping over of trees by the wind. See also Tree-tip.

Tables

Table 1a.—Temperature and Precipitation

(Recorded in the period 1971-2000 at: GLOVERSVILLE, NY3319)

Month	Temperature (Degrees F.)						Precipitation (Inches)				
				2 yrs in 10 will have--				2 yrs in 10 will have--			
	Average daily maximum	Average daily minimum	Average	Maximum temp. higher than--	Minimum temp. lower than--	Average number of growing degree days*	Average	less than--	more than--	Average number of days w/.1 or more	Average total snowfall
	°F	°F	°F	°F	°F	Units	In	In	In	In	In
January	28.3	10.4	19.4	52	-21	2	3.30	2.04	4.51	7	22.0
February	31.6	11.9	21.8	56	-16	4	2.87	1.77	3.99	6	15.6
March	41.6	21.8	31.7	72	-6	34	3.56	2.23	4.82	7	13.8
April	55.3	33.2	44.3	82	15	176	3.85	2.42	5.00	7	3.0
May	68.5	44.8	56.6	88	29	514	4.08	2.25	5.68	7	0.0
June	76.1	53.8	64.9	91	37	746	4.28	2.43	5.91	8	0.0
July	80.4	58.4	69.4	92	45	911	4.22	2.26	6.03	7	0.0
August	78.3	56.6	67.4	91	41	848	4.23	2.74	5.62	7	0.0
September	70.0	48.8	59.4	86	30	577	4.10	2.50	5.49	7	0.0
October	58.4	36.9	47.7	79	20	250	3.63	1.90	5.26	7	0.1
November	45.1	29.2	37.2	71	9	67	3.67	2.31	4.91	7	5.3
December	33.2	17.4	25.3	56	-10	6	3.47	2.09	4.71	7	16.9
Yearly :	---	---	---	---	---	---	---	---	---	---	---
Average	55.6	35.3	45.4	---	---	---	---	---	---	---	---
Extreme	95	-29	---	92	-22	---	---	---	---	---	---
Total	---	---	---	---	---	4134	45.25	32.77	51.50	84	76.6

*A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (Threshold: 40.0 deg. F)

Table 1b.—Temperature and Precipitation

(Recorded in the period 1971-2000 at: INDIAN LAKE 2 SW, NY4102)

Month	Temperature (Degrees F.)						Precipitation (Inches)				
				2 yrs in 10 will have--				2 yrs in 10 will have--			
	Average daily maximum	Average daily minimum	Average	Maximum temp. higher than--	Minimum temp. lower than--	Average number of growing degree days*	Average	less than--	more than--	Average number of days w/.1 or more	Average total snowfall
	oF	oF	oF	oF	oF	Units	In	In	In	In	In
January	25.5	3.4	14.5	51	-28	1	3.16	1.72	4.60	7	12.5
February	28.2	4.5	16.4	53	-25	2	2.31	1.28	3.31	5	8.9
March	37.1	14.6	25.9	65	-17	12	3.13	1.78	4.51	6	6.9
April	49.1	27.3	38.2	76	7	78	2.89	1.85	3.92	7	2.5
May	63.1	38.7	50.9	84	23	346	3.60	2.22	4.95	7	0.0
June	70.9	47.7	59.3	87	30	577	3.75	2.04	5.20	8	0.0
July	75.1	52.5	63.8	88	37	737	3.64	2.24	5.02	7	0.0
August	73.1	51.1	62.1	86	35	684	3.91	2.58	5.28	7	0.0
September	65.1	43.5	54.3	82	26	431	4.17	2.78	5.31	7	0.0
October	54.0	32.8	43.4	74	17	163	3.72	2.01	5.35	7	0.3
November	41.3	24.5	32.9	65	2	34	3.49	2.38	4.65	7	4.3
December	30.2	11.4	20.8	54	-20	4	2.74	1.64	3.68	7	19.4
Yearly :	---	---	---	---	---	---	---	---	---	---	---
Average	51.1	29.3	40.2	---	---	---	---	---	---	---	---
Extreme	94	-36	---	89	-30	---	---	---	---	---	---
Total	---	---	---	---	---	3069	40.50	34.82	44.01	82	54.7

*A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (Threshold: 40.0 deg. F)

Table 2a.—Freeze Dates in Spring and Fall

(Recorded in the period 1971-2000 at: GLOVERSVILLE, NY3319)

Probability	Temperature		
	24^{o}F or lower	28^{o}F or lower	32^{o}F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	April 22	May 7	May 18
2 year in 10 later than--	April 19	May 3	May 14
5 year in 10 later than--	April 13	April 25	May 8
First freezing temperature in fall:			
1 yr in 10 earlier than--	October 14	September 30	September 21
2 yr in 10 earlier than--	October 18	October 4	September 25
5 yr in 10 earlier than--	October 25	October 13	October 3

Table 2b.—Freeze Dates in Spring and Fall

(Recorded in the period 1971-2000 at: INDIAN LAKE 2 SW, NY4102)

Probability	Temperature		
	24^{o}F or lower	28^{o}F or lower	32^{o}F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	May 13	May 27	June 15
2 year in 10 later than--	May 9	May 23	June 11
5 year in 10 later than--	May 1	May 15	June 2
First freezing temperature in fall:			
1 yr in 10 earlier than--	September 30	September 19	September 5
2 yr in 10 earlier than--	October 5	September 24	September 9
5 yr in 10 earlier than--	October 15	October 2	September 17

Table 3a.—Growing Season

(Recorded for the period 1971-2000 at:
GLOVERSVILLE, NY3319)

Probability	Daily Minimum Temperature		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	Days	Days	Days
9 years in 10	177	155	138
8 years in 10	183	161	142
5 years in 10	195	171	149
2 years in 10	207	182	157
1 year in 10	213	188	160

Table 3b.—Growing Season

(Recorded for the period 1971-2000 at:
INDIAN LAKE 2 SW, NY4102)

Probability	Daily Minimum Temperature		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	Days	Days	Days
9 years in 10	150	122	89
8 years in 10	155	128	95
5 years in 10	165	140	107
2 years in 10	275	151	118
1 year in 10	180	157	124

Table 4.—Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
3A	Endoaquolls and Hapludolls, 0 to 3 percent slopes, frequently flooded	5,444	1.6
4C	Udorthents, 0 to 15 percent slopes, smoothed	414	0.1
5C	Udorthents, 4 to 33 percent slopes, refuse substratum	319	*
6A	Saprists and Aquents, 0 to 2 percent slopes, frequently ponded	636	0.2
7B	Endoaquents, 0 to 8 percent slopes, smoothed	409	0.1
10A	Pleasant Lake-Burnt Vly complex, 0 to 2 percent slopes	643	0.2
11B	Hinckley and Windsor soils, 3 to 8 percent slopes	75	*
11C	Hinckley and Windsor soils, 8 to 15 percent slopes	131	*
11D	Hinckley and Windsor soils, 15 to 25 percent slopes	163	*
11E	Hinckley and Windsor soils, 25 to 50 percent slopes	156	*
13F	Lansing and Mohawk soils, 25 to 50 percent slopes	1,438	0.4
16E	Broadalbin loam, 25 to 40 percent slopes	278	*
17D	Hollis-Rock outcrop complex, 3 to 25 percent slopes	1,688	0.5
18C	Chatfield-Hollis complex, 8 to 15 percent slopes, very rocky	103	*
18D	Chatfield-Hollis complex, 15 to 35 percent slopes, very rocky	206	*
21B	Galway loam, 3 to 8 percent slopes	1,833	0.5
21C	Galway loam, 8 to 15 percent slopes	468	0.1
22B	Georgia silt loam, 3 to 8 percent slopes	869	0.3
24B	Farmington loam, 2 to 8 percent slopes	739	0.2
24C	Farmington loam, 8 to 15 percent slopes	189	*
25A	Wonsqueak-Colton-Rumney complex, 0 to 15 percent slopes	683	0.2
25D	Farmington loam, 3 to 25 percent slopes, very rocky	714	0.2
32B	Mohawk silt loam, 3 to 8 percent slopes	442	0.1
32C	Mohawk silt loam, 8 to 15 percent slopes	431	0.1
32D	Mohawk silt loam, 15 to 25 percent slopes	277	*
33B	Angola silt loam, 0 to 8 percent slopes	656	0.2
34A	Manheim silt loam, 0 to 3 percent slopes	120	*
34B	Manheim silt loam, 3 to 8 percent slopes	347	0.1
42B	Lansing loam, 2 to 8 percent slopes	6,076	1.8
42C	Lansing loam, 8 to 15 percent slopes	4,397	1.3
42D	Lansing loam, 15 to 25 percent slopes	2,959	0.9
44A	Appleton silt loam, 0 to 3 percent slopes	307	*
44B	Appleton silt loam, 3 to 8 percent slopes	4,050	1.2
47A	Ilion silt loam, 0 to 3 percent slopes	1,623	0.5
47B	Ilion silt loam, 3 to 8 percent slopes	1,096	0.3
49A	Fonda mucky silt loam, 0 to 1 percent slopes	963	0.3
72B	Broadalbin fine sandy loam, 2 to 8 percent slopes	9,582	2.8
72C	Broadalbin fine sandy loam, 8 to 15 percent slopes	4,189	1.2
72D	Broadalbin fine sandy loam, 15 to 25 percent slopes	1,993	0.6
74A	Mosherville loam, 0 to 3 percent slopes	1,051	0.3
74B	Mosherville loam, 3 to 8 percent slopes	8,438	2.5
77A	Sun loam, 0 to 3 percent slopes	5,927	1.7
81B	Charlton loam, 2 to 8 percent slopes	2,344	0.7
81C	Charlton loam, 8 to 15 percent slopes	1,720	0.5
81D	Charlton loam, 15 to 25 percent slopes	215	*
89A	Whitman mucky loam, 0 to 3 percent slopes	522	0.2
90B	Palatine silt loam, 3 to 8 percent slopes	524	0.2
90C	Palatine silt loam, 8 to 15 percent slopes	110	*
90D	Palatine silt loam, 15 to 25 percent slopes	164	*
94B	Paxton fine sandy loam, 3 to 8 percent slopes	3,944	1.2
94C	Paxton fine sandy loam, 8 to 15 percent slopes	1,988	0.6
94D	Paxton fine sandy loam, 15 to 25 percent slopes	1,397	0.4
95B	Woodbridge loam, 3 to 8 percent slopes	5,980	1.8
96B	Ridgebury loam, 0 to 8 percent slopes	1,843	0.5
99A	Timakwa muck, 0 to 2 percent slopes	1,446	0.4
109A	Catden muck, 0 to 2 percent slopes	499	0.1
112A	Scio-Urban land complex, 0 to 3 percent slopes	504	0.1
114B	Windsor-Urban land complex, 3 to 8 percent slopes	223	*
114C	Windsor-Urban land complex, 8 to 15 percent slopes	236	*
114D	Windsor-Urban land complex, 15 to 25 percent slopes	11	*
115B	Udipsamments, 0 to 8 percent slopes, smoothed	106	*
116	Urban land	178	*

Table 4.—Acreage and Proportionate Extent of the Soils—Continued

Map symbol	Soil name	Acres	Percent
117B	Broadalbin-Urban land complex, 3 to 8 percent slopes	6	*
117C	Broadalbin-Urban land complex, 8 to 15 percent slopes	63	*
130B	Hudson silty clay loam, 3 to 8 percent slopes	275	*
130C	Hudson silty clay loam, 8 to 15 percent slopes	385	0.1
134A	Rhinebeck silty clay loam, 0 to 3 percent slopes	868	0.3
134B	Rhinebeck silty clay loam, 3 to 8 percent slopes	674	0.2
135A	Churchville silty clay loam, 0 to 3 percent slopes	520	0.2
135B	Churchville silty clay loam, 3 to 8 percent slopes	2,216	0.7
137A	Madalin silty clay loam, 0 to 3 percent slopes	3,954	1.2
151B	Unadilla silt loam, 3 to 8 percent slopes	47	*
152A	Scio silt loam, 0 to 3 percent slopes	472	0.1
152B	Scio silt loam, 3 to 8 percent slopes	1,607	0.5
154A	Tonawanda silt loam, 0 to 3 percent slopes	982	0.3
154B	Tonawanda silt loam, 3 to 8 percent slopes	1,241	0.4
157A	Birdsall mucky silt loam, 0 to 3 percent slopes	1,386	0.4
160A	Agawam fine sandy loam, 0 to 3 percent slopes	94	*
160B	Agawam fine sandy loam, 3 to 8 percent slopes	539	0.2
162B	Ninigret fine sandy loam, 3 to 8 percent slopes	1,130	0.3
165A	Stafford loamy fine sand, 0 to 3 percent slopes	881	0.3
170B	Windsor loamy sand, 2 to 8 percent slopes	7,078	2.1
170C	Windsor loamy sand, 8 to 15 percent slopes	3,764	1.1
170D	Windsor loamy sand, 15 to 25 percent slopes	1,605	0.5
179A	Scarboro mucky loamy sand, 0 to 3 percent slopes	1,017	0.3
182A	Elmridge fine sandy loam, 0 to 3 percent slopes	99	*
182B	Elmridge fine sandy loam, 3 to 8 percent slopes	341	0.1
187A	Aeric Epiaquepts, 0 to 3 percent slopes	516	0.2
189A	Cheektowaga mucky very fine sandy loam, 0 to 3 percent slopes	402	0.1
197A	Fredon loam, 0 to 3 percent slopes	404	0.1
201B	Alton gravelly loam, 3 to 8 percent slopes	386	0.1
201C	Alton gravelly loam, 8 to 15 percent slopes	289	*
201D	Alton gravelly loam, 15 to 25 percent slopes	211	*
210A	Merrimac fine sandy loam, 0 to 3 percent slopes	45	*
210B	Merrimac fine sandy loam, 3 to 8 percent slopes	323	*
210C	Merrimac fine sandy loam, 8 to 15 percent slopes	29	*
210D	Merrimac fine sandy loam, 15 to 25 percent slopes	63	*
211A	Burnt Vly-Humaquepts-Pleasant Lake complex, 0 to 2 percent slopes	3,316	1.0
212A	Hinckley gravelly loamy sand, 0 to 3 percent slopes	332	*
212B	Hinckley gravelly loamy sand, 3 to 8 percent slopes	215	*
212C	Hinckley gravelly loamy sand, 8 to 15 percent slopes	291	*
232A	Teel silt loam, 0 to 3 percent slopes	217	*
244A	Darien silt loam, 0 to 3 percent slopes	166	*
244B	Darien silt loam, 3 to 8 percent slopes	415	0.1
363A	Adams loamy sand, 0 to 3 percent slopes	104	*
363B	Adams loamy sand, 3 to 15 percent slopes	813	0.2
363D	Adams loamy sand, 15 to 35 percent slopes	208	*
363F	Adams loamy sand, 35 to 60 percent slopes	113	*
365A	Naumburg-Croghan complex, 0 to 3 percent slopes	250	*
368A	Searsport-Wonsqueak-Naumburg complex, 0 to 3 percent slopes	212	*
375A	Colton-Adams complex, 0 to 3 percent slopes	25	*
375C	Colton-Adams complex, 3 to 15 percent slopes	307	*
375D	Colton-Adams complex, 15 to 35 percent slopes	107	*
650C	Monadnock-Adams-Colton complex, 3 to 15 percent slopes, bouldery	339	*
650D	Monadnock-Adams-Colton complex 15 to 35 percent slopes, bouldery	171	*
651C	Monadnock-Tunbridge-Sabattis complex, rolling, rocky, very bouldery	267	*
651D	Monadnock-Tunbridge complex, hilly, rocky, very bouldery	310	*
651F	Monadnock-Tunbridge complex, very steep, rocky, very bouldery	281	*
653C	Monadnock fine sandy loam, 3 to 15 percent slopes, very bouldery	233	*
653D	Monadnock fine sandy loam, 15 to 35 percent slopes, very bouldery	72	*
708B	Adirondack-Sabattis-Tughill complex, 0 to 8 percent slopes, very bouldery	3,845	1.1
711C	Adirondack-Tunbridge-Burnt Vly, 3 to 15 percent slopes, very bouldery	571	0.2
721C	Becket-Tunbridge-Skerry complex, 3 to 15 percent slopes, rocky, very bouldery	12,056	3.5

Table 4.—Acreage and Proportionate Extent of the Soils—Continued

Map symbol	Soil name	Acres	Percent
721D	Becket-Tunbridge complex, 15 to 35 percent slopes, rocky, very bouldery	12,378	3.6
721F	Becket-Tunbridge complex, 35 to 60 percent slopes, rocky, very bouldery	530	0.2
723C	Becket sandy loam, 3 to 15 percent slopes, very bouldery	2,281	0.7
723D	Becket sandy loam, 15 to 35 percent slopes, very bouldery	853	0.3
725B	Skerry-Becket complex, 3 to 15 percent slopes, very bouldery	7,530	2.2
727B	Skerry-Adirondack complex, 0 to 8 percent slopes, very bouldery	5,811	1.7
741C	Potsdam-Tunbridge complex, 3 to 15 percent slopes, rocky, very bouldery	3,445	1.0
741D	Potsdam-Tunbridge complex, 15 to 35 percent slopes, rocky, very bouldery	9,637	2.8
743C	Potsdam loam, 3 to 15 percent slopes, very bouldery	830	0.2
743D	Potsdam loam, 15 to 35 percent slopes, very bouldery	1,415	0.4
745C	Crary-Potsdam complex, 3 to 15 percent slopes, very bouldery	4,551	1.3
747B	Crary-Adirondack complex, 0 to 8 percent slopes, very bouldery	1,479	0.4
831C	Tunbridge-Lyman complex, 3 to 15 percent slopes, very rocky, very bouldery	1,911	0.6
831D	Tunbridge-Lyman complex, 15 to 35 percent slopes, very rocky, very bouldery	12,348	3.6
831F	Tunbridge-Lyman complex, 35 to 60 percent slopes, very rocky, very bouldery	2,434	0.7
833C	Tunbridge-Adirondack-Lyman complex, 0 to 25 percent slopes, rocky, very bouldery	175	*
836C	Tunbridge-Wonsqueak-Knob Lock complex, 0 to 25 percent slopes, very rocky, very bouldery	689	0.2
851C	Lyman-Knob Lock complex, 3 to 15 percent slopes, very rocky, very bouldery	21	*
851D	Lyman-Knob Lock complex, 15 to 35 percent slopes, very rocky, very bouldery	121	*
851F	Lyman-Knob Lock complex, 35 to 60 percent slopes, very rocky, very bouldery	2,827	0.8
931D	Mundalite-Rawsonville complex, 15 to 35 percent slopes, rocky, very bouldery	157	*
931F	Mundalite-Rawsonville complex, 35 to 60 percent slopes, rocky, very bouldery	82	*
941C	Rawsonville-Hogback complex, 3 to 15 percent slopes, very rocky, very bouldery	332	*
941D	Rawsonville-Hogback complex, 15 to 35 percent slopes, very rocky, very bouldery	1,788	0.5
941F	Rawsonville-Hogback complex, 35 to 60 percent slopes, very rocky, very bouldery	1,650	0.5
1018B	Colton sandy loam, 0 to 8 percent slopes	240	*
1018C	Colton sandy loam, 8 to 15 percent slopes	185	*
1018D	Colton sandy loam, 15 to 35 percent slopes	237	*
1022A	Croghan fine sandy loam, 0 to 5 percent slopes	533	0.2
1023A	Naumburg loamy fine sand, 0 to 3 percent slopes	357	0.1
1024A	Searsport mucky loamy sand, 0 to 3 percent slopes	491	0.1
1025A	Adams loamy sand, 0 to 3 percent slopes	362	0.1
1025B	Adams loamy sand, 3 to 8 percent slopes	1,824	0.5
1025C	Adams loamy sand, 8 to 15 percent slopes	2,389	0.7
1025E	Adams loamy sand, 15 to 35 percent slopes	2,239	0.7
1025F	Adams loamy sand, 35 to 70 percent slopes	768	0.2
1027B	Allagash fine sandy loam, 3 to 8 percent slopes	837	0.2
1027C	Allagash fine sandy loam, 8 to 15 percent slopes	665	0.2
1027E	Allagash fine sandy loam, 15 to 35 percent slopes	406	0.1
1070B	Berkshire loam, 3 to 8 percent slopes, very bouldery	375	0.1
1070C	Berkshire loam, 8 to 15 percent slopes, very bouldery	690	0.2
1070E	Berkshire loam, 15 to 35 percent slopes, very bouldery	326	*
1075B	Potsdam loam, 3 to 8 percent slopes, very bouldery	45	*
1075C	Potsdam loam, 8 to 15 percent slopes, very bouldery	470	0.1
1078B	Crary loam, 3 to 8 percent slopes, very bouldery	76	*
1080B	Becket sandy loam, 3 to 8 percent slopes, very bouldery	2,419	0.7
1080C	Becket sandy loam, 8 to 15 percent slopes, very bouldery	3,958	1.2
1080E	Becket sandy loam, 15 to 35 percent slopes, very bouldery	1,405	0.4
1081B	Skerry fine sandy loam, 3 to 8 percent slopes, very bouldery	3,157	0.9

Table 4.—Acreage and Proportionate Extent of the Soils—Continued

Map symbol	Soil name	Acres	Percent
1081C	Skerry fine sandy loam, 8 to 15 percent slopes, very bouldery	1,402	0.4
1091C	Lyman-Becket-Tunbridge complex, 8 to 15 percent slopes, very rocky, very bouldery	64	*
1091E	Lyman-Becket-Tunbridge complex, 15 to 35 percent slopes, very rocky, very bouldery	480	0.1
1118C	Adams-Colton complex, 3 to 15 percent slopes	51	*
1118D	Adams-Colton complex, 15 to 35 percent slopes	21	*
1170B	Henniker fine sandy loam, 3 to 8 percent slopes	6,938	2.0
1170C	Henniker fine sandy loam, 8 to 15 percent slopes	6,026	1.8
1170E	Henniker fine sandy loam, 15 to 35 percent slopes	4,147	1.2
1171B	Metacomet fine sandy loam, 3 to 8 percent slopes	8,410	2.5
1171C	Metacomet fine sandy loam, 8 to 15 percent slopes	1,746	0.5
1172B	Pillsbury fine sandy loam, 3 to 8 percent slopes	2,961	0.9
1178A	Adirondack fine sandy loam, 0 to 3 percent slopes, very bouldery	356	0.1
1178B	Adirondack fine sandy loam, 3 to 8 percent slopes, very bouldery	2,229	0.7
1185A	Wonsqueak mucky peat, 0 to 2 percent slopes	1,202	0.4
1190C	Tunbridge-Lyman complex, 3 to 15 percent slopes, very rocky, very bouldery	277	*
1190E	Tunbridge-Lyman complex, 15 to 35 percent slopes, very rocky, very bouldery	2,195	0.6
1190F	Tunbridge-Lyman complex, 35 to 70 percent slopes, very rocky, very bouldery	125	*
1193A	Wonsqueak-Humaquepts complex, 0 to 3 percent slopes, frequently flooded	3,363	1.0
1291C	Becket-Lyman-Tunbridge complex, 8 to 15 percent slopes, very rocky, very bouldery	989	0.3
1291D	Becket-Lyman-Tunbridge complex, 15 to 35 percent slopes, very rocky, very bouldery	923	0.3
1292C	Becket-Tunbridge complex, 3 to 15 percent slopes, rocky, very bouldery	4,736	1.4
1292E	Becket-Tunbridge complex, 15 to 35 percent slopes, rocky, very bouldery	3,348	1.0
1292F	Becket-Tunbridge complex, 35 to 60 percent slopes, rocky, very bouldery	81	*
1293C	Skerry-Tunbridge complex, 3 to 15 percent slopes, rocky, very bouldery	879	0.3
1380C	Becket-Skerry complex, 3 to 15 percent slopes, very bouldery	1,402	0.4
1391C	Lyman-Tunbridge-Rock outcrop complex, 8 to 15 percent slopes, very bouldery	82	*
1391D	Lyman-Tunbridge-Rock outcrop complex, 15 to 35 percent slopes, very bouldery	32	*
1580B	Adirondack-Skerry complex, 3 to 8 percent slopes, very bouldery	434	0.1
1591F	Lyman-Berkshire complex, 35 to 60 percent slopes, very rocky, very bouldery	327	*
1911C	Potsdam-Lyman complex, 8 to 15 percent slopes, rocky, very bouldery	571	0.2
1911E	Potsdam-Lyman complex, 15 to 35 percent slopes, rocky, very bouldery	911	0.3
1920B	Monadnock fine sandy loam, 3 to 8 percent slopes, very bouldery	108	*
1920C	Monadnock fine sandy loam, 8 to 15 percent slopes, very bouldery	747	0.2
1920E	Monadnock fine sandy loam, 15 to 35 percent slopes, very bouldery	121	*
1941A	Sabattis mucky loam, 0 to 3 percent slopes, very bouldery	2,439	0.7
2170B	Henniker fine sandy loam, 3 to 8 percent slopes, very stony	115	*
2170C	Henniker fine sandy loam, 8 to 15 percent slopes, very stony	28	*
2170E	Henniker fine sandy loam, 15 to 35 percent slopes, very stony	230	*
2171B	Metacomet fine sandy loam, 3 to 8 percent slopes, very stony	140	*
2171C	Metacomet fine sandy loam, 8 to 15 percent slopes, very stony	48	*
2172B	Pillsbury fine sandy loam, 3 to 8 percent slopes, very stony	678	0.2
DeB	Deerfield loamy fine sand, undulating	2	*
GP	Pits, sand and gravel	502	0.1
W	Water	23,581	6.9
	Total	340,800	100.0

* Less than 0.1 percent.

Table 5.—Non-Irrigated Yields

(Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil.)

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass hay	Pasture
		Tons	Bu	Tons	Tons	AUM
3A:						
Endoaquolls, frequently flooded	5w	---	---	---	---	---
Hapludolls, frequently flooded	2w	---	---	---	---	5.00
4C:						
Udorthents, smoothed	3s	---	---	---	---	---
5C:						
Udorthents, refuse substratum	8	---	---	---	---	---
6A:						
Saprists, frequently ponded	7w	---	---	---	---	---
Aquents, frequently ponded	7w	---	---	---	---	---
7B:						
Endoaquents, smoothed	3w	---	---	---	---	---
10A:						
Pleasant Lake	7w	---	---	---	---	---
Burnt Vly	7w	---	---	---	---	---
11B:						
Hinckley	3s	4.00	90.00	14.00	3.00	5.00
Windsor	3s	4.50	90.00	14.00	3.00	5.00
11C:						
Hinckley	4s	4.00	90.00	14.00	3.00	5.00
Windsor	4s	4.50	90.00	14.00	3.00	5.00
11D:						
Hinckley	6s	---	---	---	2.50	4.00
Windsor	6s	---	---	---	2.50	4.00
11E:						
Hinckley	7s	---	---	---	---	3.00
Windsor	7s	---	---	---	---	3.00
13F:						
Lansing	7e	---	---	---	---	---
Mohawk	6e	---	---	---	---	4.00
16E:						
Broadalbin	6e	---	---	---	---	4.50

Table 5.—Non-Irrigated Yields—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass hay	Pasture
		Tons	Bu	Tons	Tons	AUM
17D:						
Hollis------------------	6s	---	---	---	---	2.00
Rock outcrop------------	8	---	---	---	---	---
18C:						
Chatfield---------------	6s	---	---	---	---	4.00
Hollis------------------	6s	---	---	---	---	2.00
18D:						
Chatfield---------------	7s	---	---	---	---	3.50
Hollis------------------	7s	---	---	---	---	2.00
21B:						
Galway------------------	2e	5.00	130.00	22.00	4.00	7.50
21C:						
Galway------------------	3e	5.00	125.00	22.00	4.00	7.50
22B:						
Georgia-----------------	2w	5.50	140.00	24.00	4.50	7.50
24B:						
Farmington--------------	3s	---	90.00	15.30	3.00	4.50
24C:						
Farmington--------------	3e	---	80.00	15.30	3.00	4.50
25A:						
Wonsqueak, ponded-------	7w	---	---	---	---	---
Colton------------------	3s	---	---	---	---	5.00
Rumney------------------	4w	---	---	---	---	3.00
25D:						
Farmington, very rocky--	6s	---	---	---	---	2.00
32B:						
Mohawk------------------	2e	5.50	140.00	24.00	5.00	8.00
32C:						
Mohawk------------------	3e	5.50	135.00	22.00	5.00	8.00
32D:						
Mohawk------------------	4e	---	---	---	4.00	6.00
33B:						
Angola------------------	3w	4.50	110.00	19.00	3.50	5.50
34A:						
Manheim-----------------	3w	4.50	125.00	21.00	4.00	6.00
34B:						
Manheim-----------------	3w	4.50	125.00	21.00	4.00	6.00
42B:						
Lansing-----------------	2e	5.50	140.00	24.00	5.00	8.50

Table 5.—Non-Irrigated Yields—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass hay	Pasture
		Tons	Bu	Tons	Tons	AUM
42C:						
Lansing	3e	5.50	135.00	24.00	5.00	8.50
42D:						
Lansing	4e	---	---	---	4.50	6.00
44A:						
Appleton	3w	4.50	125.00	21.00	4.00	6.00
44B:						
Appleton	3w	4.50	125.00	21.00	4.00	6.00
47A:						
Ilion	4w	---	---	---	---	3.00
47B:						
Ilion	4w	---	---	---	---	3.00
49A:						
Fonda	5w	---	---	---	---	---
72B:						
Broadalbin, well drained	2e	5.50	130.00	22.00	5.00	8.50
Broadalbin, moderately well drained	2w	4.50	120.00	22.00	4.50	7.00
72C:						
Broadalbin	3e	5.50	125.00	20.00	4.00	8.00
72D:						
Broadalbin	4e	---	---	---	3.50	5.50
74A:						
Mosherville	3w	---	120.00	20.00	4.00	6.00
74B:						
Mosherville	3w	---	120.00	20.00	4.00	6.00
77A:						
Sun	4w	---	---	---	---	3.00
81B:						
Charlton	2e	5.00	130.00	22.00	5.00	8.00
81C:						
Charlton	3e	5.00	125.00	20.00	5.00	7.50
81D:						
Charlton	4e	---	---	---	4.00	6.50
89A:						
Whitman	5w	---	---	---	---	---
90B:						
Palatine	2e	4.50	130.00	24.00	4.50	6.50
90C:						
Palatine	3e	4.00	120.00	22.00	4.00	6.50

Table 5.—Non-Irrigated Yields—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass hay	Pasture
		Tons	Bu	Tons	Tons	AUM
90D:						
Palatine	4e	---	---	---	3.00	5.50
94B:						
Paxton	2e	5.00	125.00	21.00	4.00	7.50
94C:						
Paxton	3e	5.00	120.00	20.00	4.00	7.00
94D:						
Paxton	4e	---	---	---	3.50	6.00
95B:						
Woodbridge	2w	4.50	120.00	20.00	4.00	6.50
96B:						
Ridgebury	3w	---	95.00	16.00	4.00	5.00
99A:						
Timakwa, undrained	7w	---	---	---	---	---
109A:						
Catden, undrained	7w	---	---	---	---	---
112A:						
Scio	---	---	---	---	---	---
Urban land	---	---	---	---	---	---
114B:						
Windsor	---	---	---	---	---	---
Urban land	---	---	---	---	---	---
114C:						
Windsor	---	---	---	---	---	---
Urban land	---	---	---	---	---	---
114D:						
Windsor	---	---	---	---	---	---
Urban land	---	---	---	---	---	---
115B:						
Udipsamments, smoothed	6s	---	---	---	---	---
116:						
Urban land	---	---	---	---	---	---
117B:						
Broadalbin, moderately well drained	---	---	---	---	---	---
Urban land	---	---	---	---	---	---
117C:						
Broadalbin, well drained	---	---	---	---	---	---
Urban land	---	---	---	---	---	---

Table 5.—Non-Irrigated Yields—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass hay	Pasture
		Tons	Bu	Tons	Tons	AUM
130B:						
Hudson	2e	5.50	135.00	23.00	4.50	7.50
130C:						
Hudson	3e	5.50	120.00	21.00	4.00	7.00
134A:						
Rhinebeck	3w	4.50	120.00	20.00	4.00	5.50
134B:						
Rhinebeck	3w	4.50	120.00	20.00	4.00	5.50
135A:						
Churchville	3w	4.00	120.00	20.00	4.00	5.50
135B:						
Churchville	3w	4.00	120.00	20.00	4.00	5.50
137A:						
Madalin	4w	---	---	---	---	3.00
151B:						
Unadilla	2e	5.50	140.00	24.00	5.00	8.00
152A:						
Scio	2w	5.50	140.00	24.00	4.50	8.00
152B:						
Scio	2w	5.50	140.00	24.00	4.50	8.00
154A:						
Tonawanda	3w	4.50	120.00	20.00	4.00	6.00
154B:						
Tonawanda	3w	4.50	120.00	20.00	4.00	6.00
157A:						
Birdsall	5w	---	---	---	---	---
160A:						
Agawam	1	6.00	140.00	24.00	5.00	8.50
160B:						
Agawam	2e	6.00	140.00	24.00	5.00	8.50
162B:						
Ninigret	2w	5.00	135.00	23.00	4.50	7.00
165A:						
Stafford	3w	---	100.00	18.00	3.50	6.00
170B:						
Windsor	3s	4.50	90.00	14.00	3.00	5.00
170C:						
Windsor	4s	4.50	90.00	14.00	3.00	5.00
170D:						
Windsor	6s	---	---	---	2.50	4.00

Table 5.—Non-Irrigated Yields—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass hay	Pasture
		Tons	Bu	Tons	Tons	AUM
179A:						
Scarboro	5w	---	---	---	---	---
182A:						
Elmridge	2w	5.00	135.00	23.00	4.50	7.50
182B:						
Elmridge	2w	5.00	135.00	23.00	4.50	7.50
187A:						
Aeric Epiaquepts, somewhat poorly drained	3w	3.50	120.00	20.00	4.00	6.00
Aeric Epiaquepts, poorly drained	4w	---	---	---	3.00	4.50
189A:						
Cheektowaga	5w	---	---	---	---	---
197A:						
Fredon, somewhat poorly drained	3w	4.50	125.00	21.00	4.00	6.00
201B:						
Alton	2s	5.50	120.00	20.00	4.50	6.00
201C:						
Alton	3e	5.50	110.00	18.00	4.00	5.50
201D:						
Alton	4e	---	---	---	3.00	4.50
210A:						
Merrimac	2s	5.00	120.00	20.00	4.00	6.00
210B:						
Merrimac	2s	5.00	120.00	20.00	4.00	6.00
210C:						
Merrimac	3e	5.00	120.00	20.00	4.00	6.00
210D:						
Merrimac	4e	---	---	---	3.50	5.00
211A:						
Burnt Vly	7w	---	---	---	---	---
Humaquepts	4w	---	---	---	---	---
Pleasant Lake	7w	---	---	---	---	---
212A:						
Hinckley	3s	4.00	90.00	14.00	3.00	5.00
212B:						
Hinckley	3s	4.00	90.00	14.00	3.00	5.00

Table 5.—Non-Irrigated Yields—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass hay	Pasture
		Tons	Bu	Tons	Tons	AUM
212C:						
Hinckley	4s	4.00	85.00	12.00	3.00	4.50
232A:						
Teel	2w	5.00	140.00	24.00	4.50	8.00
244A:						
Darien	3w	4.50	120.00	20.00	4.00	6.00
244B:						
Darien	3w	4.50	120.00	20.00	4.00	6.00
363A:						
Adams	3s	4.50	95.00	16.00	3.50	6.00
363B:						
Adams	3s	4.50	95.00	16.00	3.50	6.00
363D:						
Adams	6s	---	---	---	3.00	4.50
363F:						
Adams	7s	---	---	---	---	---
365A:						
Naumburg	3w	---	95.00	16.00	3.00	4.00
Croghan	2w	4.50	100.00	17.00	4.00	6.00
368A:						
Searsport	5w	---	---	---	---	---
Wonsqueak	7w	---	---	---	---	---
Naumburg	3w	---	---	---	3.00	3.50
375A:						
Colton	3s	3.50	85.00	14.00	3.50	5.50
Adams	3s	4.50	95.00	16.00	3.50	6.00
375C:						
Colton	4s	3.00	80.00	10.00	3.00	4.50
Adams	4s	4.00	85.00	14.00	3.50	5.00
375D:						
Colton	7s	---	---	---	3.00	4.00
Adams	7s	---	---	---	3.00	4.50
650C:						
Monadnock, very bouldery	6s	---	---	---	---	---
Adams	4s	3.50	85.00	12.00	3.00	5.50
Colton	4s	3.00	80.00	10.00	3.00	4.50

Table 5.—Non-Irrigated Yields—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass hay	Pasture
		Tons	Bu	Tons	Tons	AUM
650D:						
Monadnock, very bouldery	7s	---	---	---	---	---
Adams-------------------	6s	---	---	---	3.00	4.50
Colton------------------	6s	---	---	---	3.00	4.00
651C:						
Monadnock, very bouldery	6s	---	---	---	---	---
Tunbridge, rolling, very bouldery---------------	6s	---	---	---	---	---
Sabattis, very bouldery-	5w	---	---	---	---	---
651D:						
Monadnock, very bouldery	7s	---	---	---	---	---
Tunbridge, hilly, very bouldery---------------	7s	---	---	---	---	---
651F:						
Monadnock, very bouldery	7s	---	---	---	---	---
Tunbridge, very bouldery	7s	---	---	---	---	---
653C:						
Monadnock, very bouldery	6s	---	---	---	---	---
653D:						
Monadnock, very bouldery	7s	---	---	---	---	---
708B:						
Adirondack, very bouldery---------------	6s	---	---	---	---	---
Sabattis, very bouldery-	5w	---	---	---	---	---
Tughill, very bouldery--	5w	---	---	---	---	---
711C:						
Adirondack, very bouldery---------------	6s	---	---	---	---	---
Tunbridge, very bouldery	6s	---	---	---	---	---
Burnt Vly---------------	7w	---	---	---	---	---
721C:						
Becket, very bouldery---	6s	---	---	---	---	---
Tunbridge, very bouldery	6s	---	---	---	---	---
Skerry, very bouldery---	6s	---	---	---	---	---
721D:						
Becket, very bouldery---	7s	---	---	---	---	---
Tunbridge, very bouldery	7s	---	---	---	---	---

Table 5.—Non-Irrigated Yields—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass hay	Pasture
		Tons	Bu	Tons	Tons	AUM
721F:						
Becket, very bouldery	7s	---	---	---	---	---
Tunbridge, very bouldery	7s	---	---	---	---	---
723C:						
Becket, very bouldery	6s	---	---	---	---	---
723D:						
Becket, very bouldery	7s	---	---	---	---	---
725B:						
Skerry, very bouldery	6s	---	---	---	---	---
Becket, very bouldery	6s	---	---	---	---	---
727B:						
Skerry, very bouldery	6s	---	---	---	---	---
Adirondack, very bouldery	6s	---	---	---	---	---
741C:						
Potsdam, very bouldery	6s	---	---	---	---	---
Tunbridge, very bouldery	6s	---	---	---	---	---
741D:						
Potsdam, very bouldery	7s	---	---	---	---	---
Tunbridge, very bouldery	7s	---	---	---	---	---
743C:						
Potsdam, very bouldery	6s	---	---	---	---	---
743D:						
Potsdam, very bouldery	7s	---	---	---	---	---
745C:						
Crary, very bouldery	6s	---	---	---	---	---
Potsdam, very bouldery	6s	---	---	---	---	---
747B:						
Crary, very bouldery	6s	---	---	---	---	---
Adirondack, very bouldery	6s	---	---	---	---	---
831C:						
Tunbridge, very bouldery	6s	---	---	---	---	---
Lyman, very bouldery	6s	---	---	---	---	---
831D:						
Tunbridge, very bouldery	7s	---	---	---	---	---
Lyman, very bouldery	7s	---	---	---	---	---

Table 5.—Non-Irrigated Yields—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass hay	Pasture
		Tons	Bu	Tons	Tons	AUM
831F:						
Tunbridge, very bouldery	7s	---	---	---	---	---
Lyman, very bouldery----	7s	---	---	---	---	---
833C:						
Tunbridge, very bouldery	6s	---	---	---	---	---
Adirondack, very bouldery---------------	6s	---	---	---	---	---
Lyman, very bouldery----	6s	---	---	---	---	---
836C:						
Tunbridge, very bouldery	6s	---	---	---	---	---
Wonsqueak---------------	7w	---	---	---	---	---
Knob Lock, very bouldery	6s	---	---	---	---	---
851C:						
Lyman, very bouldery----	6s	---	---	---	---	---
Knob Lock, very bouldery	6s	---	---	---	---	---
851D:						
Lyman, very bouldery----	7s	---	---	---	---	---
Knob Lock, very bouldery	7s	---	---	---	---	---
851F:						
Lyman, very bouldery----	7s	---	---	---	---	---
Knob Lock, very bouldery	7s	---	---	---	---	---
931D:						
Mundalite, very bouldery	7s	---	---	---	---	---
Rawsonville, very bouldery---------------	7s	---	---	---	---	---
931F:						
Mundalite, very bouldery	7s	---	---	---	---	---
Rawsonville, very bouldery---------------	7s	---	---	---	---	---
941C:						
Rawsonville, very bouldery---------------	6s	---	---	---	---	---
Hogback, very bouldery--	6s	---	---	---	---	---
941D:						
Rawsonville, very bouldery---------------	7s	---	---	---	---	---
Hogback, very bouldery--	7s	---	---	---	---	---

Table 5.—Non-Irrigated Yields—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass hay	Pasture
		Tons	Bu	Tons	Tons	AUM
941F:						
Rawsonville, very bouldery	7s	---	---	---	---	---
Hogback, very bouldery	7s	---	---	---	---	---
1018B:						
Colton	3s	3.50	85.00	14.00	3.50	5.50
1018C:						
Colton	4s	3.00	80.00	10.00	3.00	4.50
1018D:						
Colton	6s	---	---	---	3.00	4.00
1022A:						
Croghan	2w	4.50	100.00	17.00	4.00	6.00
1023A:						
Naumburg	3w	---	95.00	16.00	3.00	4.00
1024A:						
Searsport	5w	---	---	---	---	---
1025A:						
Adams	3s	4.50	95.00	16.00	3.50	6.00
1025B:						
Adams	3s	4.50	95.00	16.00	3.50	6.00
1025C:						
Adams	4s	4.00	85.00	14.00	3.00	5.00
1025E:						
Adams	7s	---	---	---	3.00	4.50
1025F:						
Adams	7s	---	---	---	---	---
1027B:						
Allagash	2e	5.00	105.00	18.00	3.50	6.00
1027C:						
Allagash	3e	4.50	95.00	16.00	3.50	6.00
1027E:						
Allagash	6e	---	---	---	---	3.00
1070B:						
Berkshire, very bouldery	6s	---	---	---	---	---
1070C:						
Berkshire, very bouldery	6s	---	---	---	---	---
1070E:						
Berkshire, very bouldery	7s	---	---	---	---	---
1075B:						
Potsdam, very bouldery	6s	---	---	---	---	---

Table 5.—Non-Irrigated Yields—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass hay	Pasture
		Tons	Bu	Tons	Tons	AUM
1075C:						
Potsdam, very bouldery	6s	---	---	---	---	---
1078B:						
Crary, very bouldery	6s	---	---	---	---	---
1080B:						
Becket, very bouldery	6s	---	---	---	---	---
1080C:						
Becket, very bouldery	6s	---	---	---	---	---
1080E:						
Becket, very bouldery	7s	---	---	---	---	---
1081B:						
Skerry, very bouldery	6s	---	---	---	---	---
1081C:						
Skerry, very bouldery	6s	---	---	---	---	---
1091C:						
Lyman, very bouldery	6s	---	---	---	---	---
Becket, very bouldery	6s	---	---	---	---	---
Tunbridge, very bouldery	6s	---	---	---	---	---
1091E:						
Lyman, very bouldery	7s	---	---	---	---	---
Becket, very bouldery	7s	---	---	---	---	---
Tunbridge, very bouldery	7s	---	---	---	---	---
1118C:						
Adams	4s	4.00	90.00	14.00	3.00	5.50
Colton	4s	3.00	80.00	10.00	3.00	4.50
1118D:						
Adams	7s	---	---	---	3.00	4.50
Colton	7s	---	---	---	3.00	4.00
1170B:						
Henniker	2e	4.00	100.00	17.00	3.50	6.00
1170C:						
Henniker	3e	4.00	90.00	15.00	3.50	6.00
1170E:						
Henniker	4e	---	---	---	---	4.50
1171B:						
Metacomet	2w	4.00	110.00	18.00	4.00	6.50

Table 5.—Non-Irrigated Yields—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass hay	Pasture
		Tons	Bu	Tons	Tons	AUM
1171C:						
Metacomet	3e	3.50	90.00	15.00	3.50	6.00
1172B:						
Pillsbury, somewhat poorly drained	3w	---	---	---	2.50	4.00
1178A:						
Adirondack, very bouldery	6s	---	---	---	---	---
1178B:						
Adirondack, very bouldery	6s	---	---	---	---	---
1185A:						
Wonsqueak, undrained	7w	---	---	---	---	---
1190C:						
Tunbridge, very bouldery	6s	---	---	---	---	---
Lyman, very bouldery	6s	---	---	---	---	---
1190E:						
Tunbridge, very bouldery	7s	---	---	---	---	---
Lyman, very bouldery	7s	---	---	---	---	---
1190F:						
Tunbridge, very bouldery	7s	---	---	---	---	---
Lyman, very bouldery	7s	---	---	---	---	---
1193A:						
Wonsqueak	7w	---	---	---	---	---
Humaquepts, frequently flooded	4w	---	---	---	---	---
1291C:						
Becket, very bouldery	6s	---	---	---	---	---
Lyman, very bouldery	6s	---	---	---	---	---
Tunbridge, very bouldery	6s	---	---	---	---	---
1291D:						
Becket, very bouldery	7s	---	---	---	---	---
Lyman, very bouldery	7s	---	---	---	---	---
Tunbridge, very bouldery	7s	---	---	---	---	---
1292C:						
Becket, very bouldery	6s	---	---	---	---	---
Tunbridge, very bouldery	6s	---	---	---	---	---

Table 5.—Non-Irrigated Yields—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass hay	Pasture
		Tons	Bu	Tons	Tons	AUM
1292E:						
Becket, very bouldery	7s	---	---	---	---	---
Tunbridge, very bouldery	7s	---	---	---	---	---
1292F:						
Becket, very bouldery	7s	---	---	---	---	---
Tunbridge, very bouldery	7s	---	---	---	---	---
1293C:						
Skerry, very bouldery	6s	---	---	---	---	---
Tunbridge, very bouldery	6s	---	---	---	---	---
1380C:						
Becket, very bouldery	6s	---	---	---	---	---
Skerry, very bouldery	6s	---	---	---	---	---
1391C:						
Lyman, very bouldery	6s	---	---	---	---	---
Tunbridge, very bouldery	6s	---	---	---	---	---
Rock outcrop	8	---	---	---	---	---
1391D:						
Lyman, very bouldery	7s	---	---	---	---	---
Tunbridge, very bouldery	7s	---	---	---	---	---
Rock outcrop	8	---	---	---	---	---
1580B:						
Adirondack, very bouldery	6s	---	---	---	---	---
Skerry, very bouldery	6s	---	---	---	---	---
1591F:						
Lyman, very bouldery	7s	---	---	---	---	---
Berkshire, very bouldery	7s	---	---	---	---	---
1911C:						
Potsdam, very bouldery	6s	---	---	---	---	---
Lyman, very bouldery	6s	---	---	---	---	---
1911E:						
Potsdam, very bouldery	7s	---	---	---	---	---
Lyman, very bouldery	7s	---	---	---	---	---
1920B:						
Monadnock, very bouldery	6s	---	---	---	---	---
1920C:						
Monadnock, very bouldery	6s	---	---	---	---	---

Table 5.—Non-Irrigated Yields—Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass hay	Pasture
		Tons	Bu	Tons	Tons	AUM
1920E:						
Monadnock, very bouldery	7s	---	---	---	---	---
1941A:						
Sabattis, very bouldery-	5w	---	---	---	---	---
2170B:						
Henniker, very stony----	6s	---	---	---	---	---
2170C:						
Henniker, very stony----	6s	---	---	---	---	---
2170E:						
Henniker, very stony----	7s	---	---	---	---	---
2171B:						
Metacomet, very stony---	6s	---	---	---	---	---
2171C:						
Metacomet, very stony---	6s	---	---	---	---	---
2172B:						
Pillsbury, very stony---	6s	---	---	---	---	---
DeB:						
Deerfield---------------	2w	3.50	---	16.00	---	4.50
GP:						
Pits, sand and gravel---	7s	---	---	---	---	---

Table 6.—Prime Farmland

(Only the soils considered prime farmland are listed. Urban or built-up areas of the soils listed are not considered prime farmland. If a soil is prime farmland only under certain conditions, the conditions are specified in parentheses after the soil name.)

Map symbol	Soil name
21B	Galway loam, 3 to 8 percent slopes
22B	Georgia silt loam, 3 to 8 percent slopes
32B	Mohawk silt loam, 3 to 8 percent slopes
33B	Angola silt loam, 0 to 8 percent slopes (Prime farmland if drained)
34A	Manheim silt loam, 0 to 3 percent slopes (Prime farmland if drained)
34B	Manheim silt loam, 3 to 8 percent slopes (Prime farmland if drained)
42B	Lansing loam, 2 to 8 percent slopes
44A	Appleton silt loam, 0 to 3 percent slopes (Prime farmland if drained)
44B	Appleton silt loam, 3 to 8 percent slopes (Prime farmland if drained)
72B	Broadalbin fine sandy loam, 2 to 8 percent slopes
81B	Charlton loam, 2 to 8 percent slopes
90B	Palatine silt loam, 3 to 8 percent slopes
94B	Paxton fine sandy loam, 3 to 8 percent slopes
95B	Woodbridge loam, 3 to 8 percent slopes
130B	Hudson silty clay loam, 3 to 8 percent slopes
134A	Rhinebeck silty clay loam, 0 to 3 percent slopes (Prime farmland if drained)
134B	Rhinebeck silty clay loam, 3 to 8 percent slopes (Prime farmland if drained)
135A	Churchville silty clay loam, 0 to 3 percent slopes (Prime farmland if drained)
135B	Churchville silty clay loam, 3 to 8 percent slopes (Prime farmland if drained)
151B	Unadilla silt loam, 3 to 8 percent slopes
152A	Scio silt loam, 0 to 3 percent slopes
152B	Scio silt loam, 3 to 8 percent slopes
154A	Tonawanda silt loam, 0 to 3 percent slopes (Prime farmland if drained)
154B	Tonawanda silt loam, 3 to 8 percent slopes (Prime farmland if drained)
160A	Agawam fine sandy loam, 0 to 3 percent slopes
160B	Agawam fine sandy loam, 3 to 8 percent slopes
162B	Ninigret fine sandy loam, 3 to 8 percent slopes
182A	Elmridge fine sandy loam, 0 to 3 percent slopes
182B	Elmridge fine sandy loam, 3 to 8 percent slopes
187A	Aeric Epiaquepts, 0 to 3 percent slopes (Prime farmland if drained)
197A	Fredon loam, 0 to 3 percent slopes (Prime farmland if drained)
201B	Alton gravelly loam, 3 to 8 percent slopes
210A	Merrimac fine sandy loam, 0 to 3 percent slopes
210B	Merrimac fine sandy loam, 3 to 8 percent slopes
232A	Teel silt loam, 0 to 3 percent slopes
244A	Darien silt loam, 0 to 3 percent slopes (Prime farmland if drained)
244B	Darien silt loam, 3 to 8 percent slopes (Prime farmland if drained)
1027B	Allagash fine sandy loam, 3 to 8 percent slopes
1170B	Henniker fine sandy loam, 3 to 8 percent slopes
1171B	Metacomet fine sandy loam, 3 to 8 percent slopes

Table 7.—Forestland Productivity

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
3A:				
Endoaquolls, frequently flooded	variable	---	---	variable
Hapludolls, frequently flooded	variable	---	---	variable
4C:				
Udorthents, smoothed	variable	---	---	variable
5C:				
Udorthents, refuse substratum	variable	---	---	variable
6A:				
Saprists, frequently ponded	variable	---	---	variable
Aquents, frequently ponded	variable	---	---	variable
7B:				
Endoaquents, smoothed	variable	---	---	variable
10A:				
Pleasant Lake	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
Burnt Vly	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
11B:				
Hinckley	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
Windsor	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
11C:				
Hinckley	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
Windsor	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
11D:				
Hinckley	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
Windsor	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
11E:				
Hinckley	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
Windsor	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
13F:				
Lansing	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	eastern hemlock	---	---	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
Mohawk	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	eastern hemlock	---	---	
16E:				
Broadalbin	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	
17D:				
Hollis	American beech	50	32	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	50	32	
	yellow birch	50	32	
	white ash	60	38	
	red maple	50	32	
	eastern white pine	55	92	
	northern red oak	60	43	
	red spruce	40	87	
	red pine	55	77	
Rock outcrop	---	---	---	---
18C:				
Chatfield	American beech	60	38	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	60	38	
	yellow birch	60	38	
	white ash	70	43	
	red maple	60	38	
	eastern white pine	65	114	
	northern red oak	70	52	
	red spruce	50	109	
	red pine	65	107	
Hollis	American beech	50	32	eastern white pine, northern red oak, sugar maple, white ash
	sugar maple	50	32	
	yellow birch	50	32	
	white ash	60	38	
	red maple	50	32	
	eastern white pine	55	92	
	northern red oak	60	43	
	red spruce	40	87	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
18D:				
Chatfield	American beech	60	38	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	60	38	
	yellow birch	60	38	
	white ash	70	43	
	red maple	60	38	
	eastern white pine	65	114	
	northern red oak	70	52	
	red spruce	50	109	
	red pine	65	107	
Hollis	American beech	50	32	eastern white pine, northern red oak, sugar maple, white ash
	sugar maple	50	32	
	yellow birch	50	32	
	white ash	60	38	
	red maple	50	32	
	eastern white pine	55	92	
	northern red oak	60	43	
	red spruce	40	87	
21B:				
Galway	eastern white pine	60	102	eastern white pine, northern red oak, sugar maple
	northern red oak	65	47	
	eastern white cedar	---	---	
	sugar maple	55	35	
	American basswood	---	---	
	shagbark hickory	---	---	
	white oak	---	---	
	American hornbeam	---	---	
	white ash	65	40	
21C:				
Galway	eastern white pine	60	102	eastern white pine, northern red oak, sugar maple
	northern red oak	65	47	
	eastern white cedar	---	---	
	sugar maple	55	35	
	American basswood	---	---	
	shagbark hickory	---	---	
	white oak	---	---	
	American hornbeam	---	---	
	white ash	65	40	
22B:				
Georgia	American beech	67	41	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	67	41	
	yellow birch	67	41	
	white ash	77	48	
	red maple	67	41	
	eastern white pine	73	133	
	northern red oak	77	59	
	red spruce	57	129	
	red pine	73	147	
24B:				
Farmington	eastern white pine	60	102	eastern white pine, northern red oak
	northern red oak	65	47	
	eastern white cedar	---	---	
	American basswood	55	29	
	American hornbeam	---	---	
	white ash	65	40	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
24C:				
Farmington	eastern white pine	60	102	eastern white pine, northern red oak
	northern red oak	65	47	
	eastern white cedar	---	---	
	American basswood	55	29	
	American hornbeam	---	---	
	white ash	65	40	
25A:				
Wonsqueak, ponded	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
Rumney	black spruce	40	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	55	50	
	eastern white cedar	35	51	
	red spruce	45	98	
	eastern white pine	55	92	
	balsam fir	50	109	
	red maple	50	32	
25D:				
Farmington, very rocky	eastern white pine	60	102	eastern white pine, northern red oak
	northern red oak	65	47	
	eastern white cedar	---	---	
	American basswood	55	29	
	American hornbeam	---	---	
	white ash	65	40	
32B:				
Mohawk	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	eastern hemlock	---	---	
32C:				
Mohawk	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	eastern hemlock	---	---	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
32D:				
Mohawk	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	eastern hemlock	---	---	
33B:				
Angola	eastern white pine	65	114	eastern white pine, white ash, northern red oak
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	red maple	60	38	
	American elm	---	---	
34A:				
Manheim	eastern white pine	65	114	eastern white pine, white ash, northern red oak
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	red maple	60	38	
34B:				
Manheim	eastern white pine	65	114	eastern white pine, white ash, northern red oak
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	red maple	60	38	
42B:				
Lansing	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	eastern hemlock	---	---	
42C:				
Lansing	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	eastern hemlock	---	---	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
42D:				
Lansing	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	eastern hemlock	---	---	
44A:				
Appleton	eastern white pine	65	114	eastern white pine, white ash, northern red oak
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	red maple	60	38	
	American elm	---	---	
44B:				
Appleton	eastern white pine	65	114	eastern white pine, white ash, northern red oak
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	red maple	60	38	
	American elm	---	---	
47A:				
Ilion	red maple	50	32	eastern white cedar
	green ash	---	---	
	American elm	---	---	
	black ash	---	---	
	white ash	60	38	
	swamp white oak	---	---	
	silver maple	---	---	
	eastern white cedar	35	51	
47B:				
Ilion	red maple	50	32	eastern white cedar
	green ash	---	---	
	American elm	---	---	
	black ash	---	---	
	white ash	60	38	
	swamp white oak	---	---	
	silver maple	---	---	
	eastern white cedar	35	51	
49A:				
Fonda	red maple	50	32	eastern white cedar
	green ash	---	---	
	American elm	---	---	
	black ash	---	---	
	swamp white oak	---	---	
	silver maple	---	---	
	eastern white cedar	35	51	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
72B:				
Broadalbin, well drained	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	
Broadalbin, moderately well drained	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	
72C:				
Broadalbin	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	
72D:				
Broadalbin	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	
74A:				
Mosherville	American beech	55	35	red spruce, balsam fir, yellow birch, red maple
	sugar maple	55	35	
	yellow birch	55	35	
	white ash	65	40	
	red maple	55	35	
	eastern white pine	60	102	
	northern red oak	65	47	
	red spruce	45	98	
74B:				
Mosherville	American beech	55	35	red spruce, balsam fir, yellow birch, red maple
	sugar maple	55	35	
	yellow birch	55	35	
	white ash	65	40	
	red maple	55	35	
	eastern white pine	60	102	
	northern red oak	65	47	
	red spruce	45	98	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
77A:				
Sun	red maple	50	32	eastern white cedar
	green ash	---	---	
	American elm	---	---	
	black ash	---	---	
	swamp white oak	---	---	
	silver maple	---	---	
	eastern white cedar	35	51	
81B:				
Charlton	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	
81C:				
Charlton	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	
81D:				
Charlton	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	
89A:				
Whitman	black spruce	40	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	55	50	
	eastern white cedar	35	51	
	red spruce	45	98	
	eastern white pine	55	92	
	balsam fir	50	109	
90B:				
Palatine	eastern white pine	75	143	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	80	57	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	80	57	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
90C:				
Palatine	eastern white pine	75	143	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	80	57	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	80	57	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
90D:				
Palatine	eastern white pine	75	143	eastern white pine, white ash, northern red oak, sugar maple, red pine
	northern red oak	80	57	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	80	57	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
94B:				
Paxton	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	
94C:				
Paxton	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	
94D:				
Paxton	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	
95B:				
Woodbridge	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
96B:				
Ridgebury	American beech	55	35	red spruce, balsam fir, yellow birch, red maple
	sugar maple	55	35	
	yellow birch	55	35	
	white ash	65	40	
	red maple	55	35	
	eastern white pine	60	102	
	northern red oak	65	47	
	red spruce	45	98	
99A:				
Timakwa, undrained	red maple	50	32	eastern white cedar
	green ash	---	---	
	American elm	---	---	
	black ash	---	---	
	swamp white oak	---	---	
	silver maple	---	---	
	eastern white cedar	35	51	
109A:				
Catden, undrained	red maple	50	32	eastern white cedar
	green ash	---	---	
	American elm	---	---	
	black ash	---	---	
	swamp white oak	---	---	
	silver maple	---	---	
	eastern white cedar	35	51	
112A:				
Scio	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
Urban land	---	---	---	---
114B:				
Windsor	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
Urban land	---	---	---	---
114C:				
Windsor	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
Urban land	---	---	---	---
114D:				
Windsor	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
Urban land	---	---	---	---
115B:				
Udipsamments, smoothed	---	---	---	---
116:				
Urban land	---	---	---	---
117B:				
Broadalbin, moderately well drained	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	
Urban land	---	---	---	---
117C:				
Broadalbin, well drained	American beech	65	40	eastern white pine, northern red oak, sugar maple, white ash, red pine
	sugar maple	65	40	
	yellow birch	65	40	
	white ash	75	47	
	red maple	65	40	
	eastern white pine	70	127	
	northern red oak	75	57	
	red spruce	55	123	
	red pine	70	122	
Urban land	---	---	---	---
130B:				
Hudson	eastern white pine	70	127	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	75	57	
	white ash	75	47	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	
	red maple	65	40	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
	black cherry	65	---	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
130C:				
Hudson	eastern white pine	70	127	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	75	57	
	white ash	75	47	
	sugar maple	65	40	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	65	40	
	red maple	65	40	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
	black cherry	65	---	
134A:				
Rhinebeck	eastern white pine	65	114	eastern white pine, white ash, northern red oak
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	red maple	60	38	
	American elm	---	---	
	eastern hemlock	---	---	
134B:				
Rhinebeck	eastern white pine	65	114	eastern white pine, white ash, northern red oak
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	red maple	60	38	
	American elm	---	---	
	eastern hemlock	---	---	
135A:				
Churchville	eastern white pine	65	114	eastern white pine, white ash, northern red oak
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	red maple	60	38	
	American elm	---	---	
	eastern hemlock	---	---	
135B:				
Churchville	eastern white pine	65	114	eastern white pine, white ash, northern red oak
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	red maple	60	38	
	American elm	---	---	
	eastern hemlock	---	---	
137A:				
Madalin	red maple	50	32	eastern white cedar
	green ash	---	---	
	American elm	---	---	
	black ash	---	---	
	swamp white oak	---	---	
	silver maple	---	---	
	eastern white cedar	35	51	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
151B:				
Unadilla	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
152A:				
Scio	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
152B:				
Scio	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
154A:				
Tonawanda	eastern white pine	65	114	eastern white pine, white ash, northern red oak
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	red maple	60	38	
	eastern hemlock	---	---	
154B:				
Tonawanda	eastern white pine	65	114	eastern white pine, white ash, northern red oak
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	red maple	60	38	
	eastern hemlock	---	---	
157A:				
Birdsall	red maple	50	32	eastern white cedar
	green ash	---	---	
	American elm	---	---	
	black ash	---	---	
	swamp white oak	---	---	
	silver maple	---	---	
	eastern white cedar	35	51	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
160A:				
Agawam	eastern white pine	75	137	eastern white pine, northern red oak, red pine
	red pine	70	122	
	eastern white cedar	---	---	
	pitch pine	65	---	
	northern red oak	70	52	
	paper birch	65	59	
	sugar maple	65	40	
160B:				
Agawam	eastern white pine	75	137	eastern white pine, northern red oak, red pine
	red pine	70	122	
	eastern white cedar	---	---	
	pitch pine	65	---	
	northern red oak	70	52	
	paper birch	65	59	
	sugar maple	65	40	
162B:				
Ninigret	eastern white pine	75	137	eastern white pine, northern red oak, red pine
	red pine	70	122	
	eastern white cedar	---	---	
	pitch pine	65	---	
	northern red oak	70	52	
	paper birch	65	59	
	sugar maple	65	40	
165A:				
Stafford	eastern white pine	65	114	eastern white pine, eastern white cedar, northern red oak
	eastern white cedar	---	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	60	38	
	red maple	60	38	
	white ash	60	38	
	eastern hemlock	---	---	
170B:				
Windsor	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
170C:				
Windsor	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
170D:				
Windsor	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
179A:				
Scarboro	red maple	50	32	eastern white cedar
	green ash	---	---	
	American elm	---	---	
	black ash	---	---	
	swamp white oak	---	---	
	silver maple	---	---	
	eastern white cedar	35	51	
182A:				
Elmridge	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
182B:				
Elmridge	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	American elm	---	---	
	eastern hemlock	---	---	
187A:				
Aeric Epiaquepts, somewhat poorly drained	eastern white pine	65	114	eastern white pine, white ash, northern red oak
	white ash	70	43	
	American basswood	---	---	
	red maple	60	38	
	American elm	---	---	
	eastern hemlock	---	---	
Aeric Epiaquepts, poorly drained	eastern white pine	65	114	eastern white pine, eastern white cedar
	American basswood	---	---	
	red maple	60	38	
	American elm	---	---	
	eastern hemlock	---	---	
189A:				
Cheektowaga	red maple	50	32	eastern white cedar
	green ash	---	---	
	American elm	---	---	
	black ash	---	---	
	swamp white oak	---	---	
	silver maple	---	---	
	eastern white cedar	35	51	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
197A:				
Fredon, somewhat poorly drained	eastern white pine	65	114	eastern white pine, white ash, northern red oak
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	60	38	
	red maple	60	38	
	white oak	---	---	
	eastern hemlock	---	---	
201B:				
Alton	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
201C:				
Alton	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
201D:				
Alton	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
210A:				
Merrimac	eastern white pine	73	133	eastern white pine, northern red oak, red pine
	red pine	67	113	
	eastern white cedar	---	---	
	pitch pine	63	---	
	northern red oak	67	49	
	paper birch	63	57	
	sugar maple	63	39	
210B:				
Merrimac	eastern white pine	73	133	eastern white pine, northern red oak, red pine
	red pine	67	113	
	eastern white cedar	---	---	
	pitch pine	63	---	
	northern red oak	67	49	
	paper birch	63	57	
	sugar maple	63	39	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
210C:				
Merrimac	eastern white pine	73	133	eastern white pine, northern red oak, red pine
	red pine	67	113	
	eastern white cedar	---	---	
	pitch pine	63	---	
	northern red oak	67	49	
	paper birch	63	57	
	sugar maple	63	39	
210D:				
Merrimac	eastern white pine	73	133	eastern white pine, northern red oak, red pine
	red pine	67	113	
	eastern white cedar	---	---	
	pitch pine	63	---	
	northern red oak	67	49	
	paper birch	63	57	
	sugar maple	63	39	
211A:				
Burnt Vly	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
Humaquepts	black spruce	40	---	---
	tamarack	55	50	
	eastern white cedar	35	51	
	red spruce	45	98	
	eastern white pine	55	92	
	balsam fir	50	109	
	red maple	50	32	
Pleasant Lake	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
212A:				
Hinckley	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
212B:				
Hinckley	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
212C:				
Hinckley	eastern white pine	70	127	eastern white pine, northern red oak, red pine
	red pine	65	107	
	eastern white cedar	---	---	
	pitch pine	60	---	
	northern red oak	65	47	
	paper birch	60	54	
	sugar maple	60	38	
232A:				
Teel	eastern white pine	75	137	eastern white pine, white ash, northern red oak, sugar maple
	northern red oak	80	62	
	white ash	80	50	
	sugar maple	70	43	
	American basswood	---	---	
	shagbark hickory	---	---	
	American beech	70	43	
	red maple	70	43	
	white oak	---	---	
	eastern hemlock	---	---	
244A:				
Darien	eastern white pine	65	114	eastern white pine, white ash, northern red oak
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	red maple	60	38	
	American hornbeam	---	---	
244B:				
Darien	eastern white pine	65	114	eastern white pine, white ash, northern red oak
	northern red oak	70	52	
	white ash	70	43	
	sugar maple	60	38	
	red maple	60	38	
	American hornbeam	---	---	
363A:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
363B:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
363D:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
363F:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
365A:				
Naumburg	eastern white pine	55	92	eastern white pine, balsam fir
	balsam fir	50	109	
	eastern white cedar	35	51	
	red spruce	45	98	
	eastern hemlock	---	---	
	red maple	50	32	
	yellow birch	50	32	
	sugar maple	50	32	
Croghan	eastern white pine	65	114	eastern white pine, sugar maple, balsam fir
	balsam fir	50	109	
	eastern white cedar	---	---	
	red spruce	45	98	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
368A:				
Searsport	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
	red maple	45	29	
Wonsqueak	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
Naumburg	eastern white pine	55	92	eastern white pine, balsam fir
	balsam fir	50	109	
	eastern white cedar	35	51	
	red spruce	45	98	
	eastern hemlock	---	---	
	red maple	50	32	
	yellow birch	50	32	
375A:				
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
375C:				
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
375D:				
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
650C:				
Monadnock, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
650D:				
Monadnock, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
651C:				
Monadnock, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, rolling, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
Sabattis, very bouldery	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
651D:				
Monadnock, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, hilly, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
651F:				
Monadnock, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
653C:				
Monadnock, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
653D:				
Monadnock, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
708B:				
Adirondack, very bouldery	red spruce	45	98	red spruce, balsam fir, yellow birch, red maple
	yellow birch	50	32	
	sugar maple	50	32	
	eastern hemlock	---	---	
	American beech	50	32	
	red maple	50	32	
	balsam fir	50	109	
Sabattis, very bouldery	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
Tughill, very bouldery	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
711C:				
Adirondack, very bouldery	red spruce	45	98	red spruce, balsam fir, yellow birch, red maple
	yellow birch	50	32	
	sugar maple	50	32	
	eastern hemlock	---	---	
	American beech	50	32	
	red maple	50	32	
	balsam fir	50	109	
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
Burnt Vly	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
721C:				
Becket, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
Skerry, very bouldery	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	60	38	
	sugar maple	60	38	
	eastern hemlock	---	---	
	American beech	60	38	
	red maple	60	38	
	balsam fir	55	123	
	eastern white pine	65	114	
721D:				
Becket, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
721F:				
Becket, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber (cu ft/ac)	Trees to manage
723C:				
Becket, very bouldery---	sugar maple---------	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech------	60	38	
	yellow birch--------	60	38	
	red spruce----------	50	109	
	eastern white pine--	65	114	
	white ash-----------	70	43	
	eastern hemlock-----	---	---	
	black cherry--------	60	---	
	red maple-----------	60	38	
723D:				
Becket, very bouldery---	sugar maple---------	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech------	60	38	
	yellow birch--------	60	38	
	red spruce----------	50	109	
	eastern white pine--	65	114	
	white ash-----------	70	43	
	eastern hemlock-----	---	---	
	black cherry--------	60	---	
	red maple-----------	60	38	
725B:				
Skerry, very bouldery---	red spruce----------	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch--------	60	38	
	sugar maple---------	60	38	
	eastern hemlock-----	---	---	
	American beech------	60	38	
	red maple-----------	60	38	
	balsam fir----------	55	123	
	eastern white pine--	65	114	
Becket, very bouldery---	sugar maple---------	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech------	60	38	
	yellow birch--------	60	38	
	red spruce----------	50	109	
	eastern white pine--	65	114	
	white ash-----------	70	43	
	eastern hemlock-----	---	---	
	black cherry--------	60	---	
	red maple-----------	60	38	
727B:				
Skerry, very bouldery---	red spruce----------	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch--------	60	38	
	sugar maple---------	60	38	
	eastern hemlock-----	---	---	
	American beech------	60	38	
	red maple-----------	60	38	
	balsam fir----------	55	123	
	eastern white pine--	65	114	
Adirondack, very bouldery---------------	red spruce----------	45	98	red spruce, balsam fir, yellow birch, red maple
	yellow birch--------	50	32	
	sugar maple---------	50	32	
	eastern hemlock-----	---	---	
	American beech------	50	32	
	red maple-----------	50	32	
	balsam fir----------	50	109	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
741C:				
Potsdam, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
741D:				
Potsdam, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
743C:				
Potsdam, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
743D:				
Potsdam, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber (cu ft/ac)	Trees to manage
745C:				
Crary, very bouldery	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	60	38	
	sugar maple	60	38	
	eastern hemlock	---	---	
	American beech	60	38	
	red maple	60	38	
	balsam fir	55	123	
	eastern white pine	65	114	
Potsdam, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
747B:				
Crary, very bouldery	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	60	38	
	sugar maple	60	38	
	eastern hemlock	---	---	
	American beech	60	38	
	red maple	60	38	
	balsam fir	55	123	
	eastern white pine	65	114	
Adirondack, very bouldery	red spruce	45	98	red spruce, balsam fir, yellow birch, red maple
	yellow birch	50	32	
	sugar maple	50	32	
	eastern hemlock	---	---	
	American beech	50	32	
	red maple	50	32	
	balsam fir	50	109	
831C:				
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
Lyman, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
	red pine	50	65	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
831D:				
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
Lyman, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
	red pine	50	65	
831F:				
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
Lyman, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
	red pine	50	65	
833C:				
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
Adirondack, very bouldery	red spruce	45	98	red spruce, balsam fir, yellow birch, red maple
	yellow birch	50	32	
	sugar maple	50	32	
	eastern hemlock	---	---	
	American beech	50	32	
	red maple	50	32	
	balsam fir	50	109	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
Lyman, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
836C:				
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
Wonsqueak	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
Knob Lock, very bouldery	red spruce	25	34	yellow birch, eastern white pine, white ash
	eastern hemlock	---	---	
	yellow birch	35	22	
	American beech	35	22	
	eastern white pine	40	62	
	white ash	45	29	
851C:				
Lyman, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
Knob Lock, very bouldery	red spruce	25	34	yellow birch, eastern white pine, white ash
	eastern hemlock	---	---	
	yellow birch	35	22	
	American beech	35	22	
	eastern white pine	40	62	
	white ash	45	29	
851D:				
Lyman, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
Knob Lock, very bouldery	red spruce----------	25	34	yellow birch, eastern white pine, white ash
	eastern hemlock-----	---	---	
	yellow birch--------	35	22	
	American beech------	35	22	
	eastern white pine--	40	62	
	white ash-----------	45	29	
851F:				
Lyman, very bouldery----	red spruce----------	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock-----	---	---	
	sugar maple---------	45	32	
	yellow birch--------	45	32	
	American beech------	45	32	
	eastern white pine--	50	81	
	white ash-----------	55	35	
	northern red oak----	55	38	
Knob Lock, very bouldery	red spruce----------	25	34	yellow birch, eastern white pine, white ash
	eastern hemlock-----	---	---	
	yellow birch--------	35	22	
	American beech------	35	22	
	eastern white pine--	40	62	
	white ash-----------	45	29	
931D:				
Mundalite, very bouldery	red spruce----------	40	87	red spruce, balsam fir, yellow birch, paper birch
	yellow birch--------	50	32	
	paper birch---------	50	43	
	balsam fir----------	45	98	
	sugar maple---------	50	32	
	American beech------	50	32	
	hemlock-------------	---	---	
	red maple-----------	50	32	
	eastern white pine--	55	92	
Rawsonville, very bouldery---------------	red spruce----------	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch--------	45	32	
	paper birch---------	45	39	
	balsam fir----------	40	87	
	sugar maple---------	45	32	
	American beech------	45	32	
	hemlock-------------	---	---	
	red maple-----------	45	29	
	eastern white pine--	50	81	
931F:				
Mundalite, very bouldery	red spruce----------	40	87	red spruce, balsam fir, yellow birch, paper birch
	yellow birch--------	50	32	
	paper birch---------	50	43	
	balsam fir----------	45	98	
	sugar maple---------	50	32	
	American beech------	50	32	
	hemlock-------------	---	---	
	red maple-----------	50	32	
	eastern white pine--	55	92	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber (cu ft/ac)	Trees to manage
Rawsonville, very bouldery	red spruce	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	45	32	
	paper birch	45	39	
	balsam fir	40	87	
	sugar maple	45	32	
	American beech	45	32	
	hemlock	---	---	
	red maple	45	29	
	eastern white pine	50	81	
941C:				
Rawsonville, very bouldery	red spruce	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	45	32	
	paper birch	45	39	
	balsam fir	40	87	
	sugar maple	45	32	
	American beech	45	32	
	hemlock	---	---	
	red maple	45	29	
	eastern white pine	50	81	
Hogback, very bouldery	red spruce	25	34	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	35	22	
	paper birch	35	30	
	balsam fir	30	52	
	sugar maple	35	22	
	American beech	35	22	
	hemlock	---	---	
	red maple	35	22	
	eastern white pine	40	62	
941D:				
Rawsonville, very bouldery	red spruce	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	45	32	
	paper birch	45	39	
	balsam fir	40	87	
	sugar maple	45	32	
	American beech	45	32	
	hemlock	---	---	
	red maple	45	29	
	eastern white pine	50	81	
Hogback, very bouldery	red spruce	25	34	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	35	22	
	paper birch	35	30	
	balsam fir	30	52	
	sugar maple	35	22	
	American beech	35	22	
	hemlock	---	---	
	red maple	35	22	
	eastern white pine	40	62	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
941F:				
Rawsonville, very bouldery	red spruce	35	70	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	45	32	
	paper birch	45	39	
	balsam fir	40	87	
	sugar maple	45	32	
	American beech	45	32	
	hemlock	---	---	
	red maple	45	29	
	eastern white pine	50	81	
Hogback, very bouldery	red spruce	25	34	red spruce, balsam fir, yellow birch, paper birch
	yellow birch	35	22	
	paper birch	35	30	
	balsam fir	30	52	
	sugar maple	35	22	
	American beech	35	22	
	hemlock	---	---	
	red maple	35	22	
	eastern white pine	40	62	
1018B:				
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
1018C:				
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
1018D:				
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
1022A:				
Croghan	eastern white pine	65	114	eastern white pine, sugar maple, balsam fir
	balsam fir	50	109	
	eastern white cedar	---	---	
	red spruce	45	98	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber (cu ft/ac)	Trees to manage
1023A:				
Naumburg	eastern white pine	55	92	eastern white pine, balsam fir
	balsam fir	50	109	
	eastern white cedar	35	51	
	red spruce	45	98	
	eastern hemlock	---	---	
	red maple	50	32	
	yellow birch	50	32	
	sugar maple	50	32	
1024A:				
Searsport	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
	red maple	45	29	
1025A:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
1025B:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
1025C:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
1025E:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
1025F:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
1027B:				
Allagash	eastern white pine	67	120	eastern white pine, northern red oak, red pine
	red pine	63	101	
	eastern white cedar	---	---	
	pitch pine	57	---	
	northern red oak	63	46	
	paper birch	57	51	
	sugar maple	57	36	
	red maple	57	36	
	balsam fir	53	118	
	red spruce	47	102	
1027C:				
Allagash	eastern white pine	67	120	eastern white pine, northern red oak, red pine
	red pine	63	101	
	eastern white cedar	---	---	
	pitch pine	57	---	
	northern red oak	63	46	
	paper birch	57	51	
	sugar maple	57	36	
	red maple	57	36	
	balsam fir	53	118	
	red spruce	47	102	
1027E:				
Allagash	eastern white pine	67	120	eastern white pine, northern red oak, red pine
	red pine	63	101	
	eastern white cedar	---	---	
	pitch pine	57	---	
	northern red oak	63	46	
	paper birch	57	51	
	sugar maple	57	36	
	red maple	57	36	
	balsam fir	53	118	
	red spruce	47	102	
1070B:				
Berkshire, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
1070C:				
Berkshire, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
1070E:				
Berkshire, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
1075B:				
Potsdam, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
1075C:				
Potsdam, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
1078B:				
Crary, very bouldery	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	60	38	
	sugar maple	60	38	
	eastern hemlock	---	---	
	American beech	60	38	
	red maple	60	38	
	balsam fir	55	123	
	eastern white pine	65	114	
1080B:				
Becket, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
1080C:				
Becket, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
1080E:				
Becket, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
1081B:				
Skerry, very bouldery	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	60	38	
	sugar maple	60	38	
	eastern hemlock	---	---	
	American beech	60	38	
	red maple	60	38	
	balsam fir	55	123	
	eastern white pine	65	114	
1081C:				
Skerry, very bouldery	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	60	38	
	sugar maple	60	38	
	eastern hemlock	---	---	
	American beech	60	38	
	red maple	60	38	
	balsam fir	55	123	
	eastern white pine	65	114	
1091C:				
Lyman, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
Becket, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber (cu ft/ac)	Trees to manage
1091E:				
Lyman, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
Becket, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
1118C:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
1118D:				
Adams	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	
Colton	eastern white pine	65	114	eastern white pine, northern red oak, red pine
	red pine	60	92	
	eastern white cedar	---	---	
	pitch pine	55	---	
	northern red oak	60	43	
	paper birch	55	48	
	sugar maple	55	35	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
1170B:				
Henniker	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
1170C:				
Henniker	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
1170E:				
Henniker	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
1171B:				
Metacomet	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	60	38	
	sugar maple	60	38	
	eastern hemlock	---	---	
	American beech	60	38	
	red maple	60	38	
	balsam fir	55	123	
	eastern white pine	65	114	
1171C:				
Metacomet	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	60	38	
	sugar maple	60	38	
	eastern hemlock	---	---	
	American beech	60	38	
	red maple	60	38	
	balsam fir	55	123	
	eastern white pine	65	114	
1172B:				
Pillsbury, somewhat poorly drained	red spruce	45	98	red spruce, balsam fir, yellow birch, red maple
	yellow birch	50	32	
	sugar maple	50	32	
	eastern hemlock	---	---	
	American beech	50	32	
	red maple	50	32	
	balsam fir	50	109	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
1178A:				
Adirondack, very bouldery	red spruce	45	98	red spruce, balsam fir, yellow birch, red maple
	yellow birch	50	32	
	sugar maple	50	32	
	eastern hemlock	---	---	
	American beech	50	32	
	red maple	50	32	
	balsam fir	50	109	
1178B:				
Adirondack, very bouldery	red spruce	45	98	red spruce, balsam fir, yellow birch, red maple
	yellow birch	50	32	
	sugar maple	50	32	
	eastern hemlock	---	---	
	American beech	50	32	
	red maple	50	32	
	balsam fir	50	109	
1185A:				
Wonsqueak, undrained	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
1190C:				
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
Lyman, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
1190E:				
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
Lyman, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
1190F:				
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
Lyman, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
1193A:				
Wonsqueak	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	
Humaquepts, frequently flooded	---	---	---	---
1291C:				
Becket, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Lyman, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
1291D:				
Becket, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Lyman, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
1292C:				
Becket, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
1292E:				
Becket, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
1292F:				
Becket, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	
1293C:				
Skerry, very bouldery	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	60	38	
	sugar maple	60	38	
	eastern hemlock	---	---	
	American beech	60	38	
	red maple	60	38	
	balsam fir	55	123	
	eastern white pine	65	114	
Tunbridge, very bouldery	red spruce	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock	---	---	
	sugar maple	55	35	
	yellow birch	55	35	
	American beech	55	35	
	eastern white pine	60	102	
	white ash	65	40	
	northern red oak	65	47	
	red pine	60	92	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
1380C:				
Becket, very bouldery---	sugar maple---------	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech------	60	38	
	yellow birch--------	60	38	
	red spruce----------	50	109	
	eastern white pine--	65	114	
	white ash-----------	70	43	
	eastern hemlock-----	---	---	
	black cherry--------	60	---	
	red maple-----------	60	38	
Skerry, very bouldery---	red spruce----------	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch--------	60	38	
	sugar maple---------	60	38	
	eastern hemlock-----	---	---	
	American beech------	60	38	
	red maple-----------	60	38	
	balsam fir----------	55	123	
	eastern white pine--	65	114	
1391C:				
Lyman, very bouldery----	red spruce----------	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock-----	---	---	
	sugar maple---------	45	32	
	yellow birch--------	45	32	
	American beech------	45	32	
	eastern white pine--	50	81	
	white ash-----------	55	35	
	northern red oak----	55	38	
Tunbridge, very bouldery	red spruce----------	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock-----	---	---	
	sugar maple---------	55	35	
	yellow birch--------	55	35	
	American beech------	55	35	
	eastern white pine--	60	102	
	white ash-----------	65	40	
	northern red oak----	65	47	
	red pine------------	60	92	
Rock outcrop------------	---	---	---	---
1391D:				
Lyman, very bouldery----	red spruce----------	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock-----	---	---	
	sugar maple---------	45	32	
	yellow birch--------	45	32	
	American beech------	45	32	
	eastern white pine--	50	81	
	white ash-----------	55	35	
	northern red oak----	55	38	
Tunbridge, very bouldery	red spruce----------	45	98	sugar maple, yellow birch, eastern white pine, white ash, black cherry, red pine, northern red oak
	eastern hemlock-----	---	---	
	sugar maple---------	55	35	
	yellow birch--------	55	35	
	American beech------	55	35	
	eastern white pine--	60	102	
	white ash-----------	65	40	
	northern red oak----	65	47	
	red pine------------	60	92	
Rock outcrop------------	---	---	---	---

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
1580B:				
Adirondack, very bouldery	red spruce	45	98	red spruce, balsam fir, yellow birch, red maple
	yellow birch	50	32	
	sugar maple	50	32	
	eastern hemlock	---	---	
	American beech	50	32	
	red maple	50	32	
	balsam fir	50	109	
Skerry, very bouldery	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	60	38	
	sugar maple	60	38	
	eastern hemlock	---	---	
	American beech	60	38	
	red maple	60	38	
	balsam fir	55	123	
	eastern white pine	65	114	
1591F:				
Lyman, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
Berkshire, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
1911C:				
Potsdam, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Lyman, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
1911E:				
Potsdam, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
Lyman, very bouldery	red spruce	35	70	sugar maple, yellow birch, eastern white pine, white ash, black cherry, northern red oak
	eastern hemlock	---	---	
	sugar maple	45	32	
	yellow birch	45	32	
	American beech	45	32	
	eastern white pine	50	81	
	white ash	55	35	
	northern red oak	55	38	
1920B:				
Monadnock, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
1920C:				
Monadnock, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
1920E:				
Monadnock, very bouldery	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
1941A:				
Sabattis, very bouldery	black spruce	35	---	red spruce, balsam fir, black spruce, tamarack, eastern white cedar
	tamarack	50	42	
	eastern white cedar	30	42	
	red spruce	40	87	
	eastern white pine	50	81	
	balsam fir	45	98	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
2170B:				
Henniker, very stony	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
2170C:				
Henniker, very stony	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
2170E:				
Henniker, very stony	sugar maple	60	38	sugar maple, yellow birch, eastern white pine, white ash, black cherry
	American beech	60	38	
	yellow birch	60	38	
	red spruce	50	109	
	eastern white pine	65	114	
	white ash	70	43	
	eastern hemlock	---	---	
	black cherry	60	---	
	red maple	60	38	
2171B:				
Metacomet, very stony	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	60	38	
	sugar maple	60	38	
	eastern hemlock	---	---	
	American beech	60	38	
	red maple	60	38	
	balsam fir	55	123	
	eastern white pine	65	114	
2171C:				
Metacomet, very stony	red spruce	50	109	red spruce, balsam fir, yellow birch, red maple
	yellow birch	60	38	
	sugar maple	60	38	
	eastern hemlock	---	---	
	American beech	60	38	
	red maple	60	38	
	balsam fir	55	123	
	eastern white pine	65	114	
2172B:				
Pillsbury, very stony	red spruce	45	98	red spruce, balsam fir, yellow birch, red maple
	yellow birch	50	32	
	sugar maple	50	32	
	eastern hemlock	---	---	
	American beech	50	32	
	red maple	50	32	
	balsam fir	50	109	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber	
			cu ft/ac	
DeB:				
Deerfield	eastern white pine	65	114	eastern white pine, red pine, white spruce
	northern red oak	55	43	
GP:				
Pits, sand and gravel	---	---	---	---

Table 8.—Hazard of Erosion and Soil Rutting on Forestland

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.]

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Hazard of off-road or off-trail erosion: Value	Soil rutting hazard: Rating class and limiting features	Soil rutting hazard: Value
3A:					
Endoaquolls, frequently flooded	55	Slight		Severe	
				Depth to saturated zone *	1.00
Hapludolls, frequently flooded	30	Slight		Moderate	
				Depth to saturated zone *	0.50
4C:					
Udorthents, smoothed	75	Not rated		Not rated	
5C:					
Udorthents, refuse substratum	70	Not rated		Not rated	
6A:					
Saprists, frequently ponded	40	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
Aquents, frequently ponded	35	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	0.50
7B:					
Endoaquents, smoothed	75	Slight		Severe	
				Depth to saturated zone *	1.00
10A:					
Pleasant Lake	45	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
Burnt Vly	35	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
11B:					
Hinckley	40	Slight		Slight	
Windsor	35	Slight		Slight	
11C:					
Hinckley	40	Slight		Slight	
Windsor	35	Slight		Slight	

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Hazard of off-road or off-trail erosion: Value	Soil rutting hazard: Rating class and limiting features	Soil rutting hazard: Value
11D:					
Hinckley	40	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Windsor	40	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
11E:					
Hinckley	45	Moderate		Severe	
		Slope/erodibility	0.50	Slope	1.00
Windsor	40	Moderate		Severe	
		Slope/erodibility	0.50	Slope	1.00
13F:					
Lansing	50	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Mohawk	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
16E:					
Broadalbin	75	Moderate		Severe	
		Slope/erodibility	0.50	Slope	1.00
17D:					
Hollis	60	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Rock outcrop	15	Not rated		Not rated	
18C:					
Chatfield	50	Slight		Slight	
Hollis	30	Slight		Slight	
18D:					
Chatfield	50	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Hollis	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
21B:					
Galway	75	Slight		Slight	
21C:					
Galway	75	Slight		Slight	
22B:					
Georgia	75	Slight		Moderate	
				Depth to saturated zone *	0.50
24B:					
Farmington	75	Slight		Slight	
24C:					
Farmington	75	Slight		Slight	

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Hazard of off-road or off-trail erosion: Value	Soil rutting hazard: Rating class and limiting features	Soil rutting hazard: Value
25A:					
Wonsqueak, ponded	35	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
Colton	25	Slight		Slight	
Rumney	20	Slight		Severe	
				Depth to saturated zone *	1.00
25D:					
Farmington, very rocky	70	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
32B:					
Mohawk	75	Slight		Slight	
32C:					
Mohawk	75	Slight		Slight	
32D:					
Mohawk	75	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
33B:					
Angola	75	Slight		Severe	
				Depth to saturated zone *	1.00
34A:					
Manheim	80	Slight		Severe	
				Depth to saturated zone *	1.00
34B:					
Manheim	80	Slight		Severe	
				Depth to saturated zone *	1.00
42B:					
Lansing	75	Slight		Slight	
42C:					
Lansing	80	Slight		Slight	
42D:					
Lansing	80	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
44A:					
Appleton	80	Slight		Severe	
				Depth to saturated zone *	1.00
44B:					
Appleton	80	Slight		Severe	
				Depth to saturated zone *	1.00

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Hazard of off-road or off-trail erosion: Value	Soil rutting hazard: Rating class and limiting features	Soil rutting hazard: Value
47A:					
Ilion	80	Slight		Severe	
				Depth to saturated zone *	1.00
47B:					
Ilion	80	Slight		Severe	
				Depth to saturated zone *	1.00
49A:					
Fonda	75	Slight		Severe	
				Depth to saturated zone *	1.00
72B:					
Broadalbin, well drained	50	Slight		Slight	
Broadalbin, moderately well drained	30	Slight		Moderate	
				Depth to saturated zone *	0.50
72C:					
Broadalbin	75	Slight		Slight	
72D:					
Broadalbin	75	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
74A:					
Mosherville	80	Slight		Severe	
				Depth to saturated zone *	1.00
74B:					
Mosherville	75	Slight		Severe	
				Depth to saturated zone *	1.00
77A:					
Sun	75	Slight		Severe	
				Depth to saturated zone *	1.00
81B:					
Charlton	80	Slight		Slight	
81C:					
Charlton	80	Slight		Slight	
81D:					
Charlton	80	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
89A:					
Whitman	75	Slight		Severe	
				Depth to saturated zone *	1.00

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
90B:					
Palatine	75	Slight		Slight	
90C:					
Palatine	80	Slight		Slight	
90D:					
Palatine	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
94B:					
Paxton	75	Slight		Slight	
94C:					
Paxton	80	Slight		Slight	
94D:					
Paxton	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
95B:					
Woodbridge	75	Slight		Moderate	
				Depth to saturated zone *	0.50
96B:					
Ridgebury	80	Slight		Severe	
				Depth to saturated zone *	1.00
99A:					
Timakwa, undrained	75	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
109A:					
Catden, undrained	75	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
112A:					
Scio	45	Slight		Moderate	
				Depth to saturated zone *	0.50
Urban land	40	Not rated		Not rated	
114B:					
Windsor	60	Slight		Slight	
Urban land	30	Not rated		Not rated	
114C:					
Windsor	60	Slight		Slight	
Urban land	30	Not rated		Not rated	

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Hazard of off-road or off-trail erosion: Value	Soil rutting hazard: Rating class and limiting features	Soil rutting hazard: Value
114D:					
Windsor	60	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Urban land	30	Not rated		Not rated	
115B:					
Udipsamments, smoothed	85	Slight		Slight	
116:					
Urban land	90	Not rated		Not rated	
117B:					
Broadalbin, moderately well drained	50	Slight		Moderate	
				Depth to saturated zone *	0.50
Urban land	30	Not rated		Not rated	
117C:					
Broadalbin, well drained	45	Slight		Slight	
Urban land	30	Not rated		Not rated	
130B:					
Hudson	75	Slight		Moderate	
				Depth to saturated zone *	0.50
130C:					
Hudson	80	Moderate		Moderate	
		Slope/erodibility	0.50	Depth to saturated zone *	0.50
134A:					
Rhinebeck	75	Slight		Severe	
				Depth to saturated zone *	1.00
134B:					
Rhinebeck	75	Slight		Severe	
				Depth to saturated zone *	1.00
135A:					
Churchville	80	Slight		Severe	
				Depth to saturated zone *	1.00
135B:					
Churchville	75	Slight		Severe	
				Depth to saturated zone *	1.00

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Hazard of off-road or off-trail erosion: Value	Soil rutting hazard: Rating class and limiting features	Soil rutting hazard: Value
137A:					
Madalin	75	Slight		Severe	
				Depth to saturated zone *	1.00
151B:					
Unadilla	80	Slight		Slight	
152A:					
Scio	80	Slight		Moderate	
				Depth to saturated zone *	0.50
152B:					
Scio	80	Slight		Moderate	
				Depth to saturated zone *	0.50
154A:					
Tonawanda	80	Slight		Severe	
				Depth to saturated zone *	1.00
154B:					
Tonawanda	80	Slight		Severe	
				Depth to saturated zone *	1.00
157A:					
Birdsall	75	Slight		Severe	
				Depth to saturated zone *	1.00
160A:					
Agawam	75	Slight		Slight	
160B:					
Agawam	75	Slight		Slight	
162B:					
Ninigret	75	Slight		Moderate	
				Depth to saturated zone *	0.50
165A:					
Stafford	80	Slight		Severe	
				Depth to saturated zone *	1.00
170B:					
Windsor	75	Slight		Slight	
170C:					
Windsor	80	Slight		Slight	
170D:					
Windsor	80	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Hazard of off-road or off-trail erosion: Value	Soil rutting hazard: Rating class and limiting features	Soil rutting hazard: Value
179A:					
Scarboro	75	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	0.50
182A:					
Elmridge	75	Slight		Moderate	
				Depth to saturated zone *	0.50
182B:					
Elmridge	75	Slight		Moderate	
				Depth to saturated zone *	0.50
187A:					
Aeric Epiaquepts, somewhat poorly drained	50	Slight		Severe	
				Depth to saturated zone *	1.00
Aeric Epiaquepts, poorly drained	30	Slight		Severe	
				Depth to saturated zone *	1.00
189A:					
Cheektowaga	75	Slight		Severe	
				Depth to saturated zone *	1.00
197A:					
Fredon, somewhat poorly drained	75	Slight		Severe	
				Depth to saturated zone *	1.00
201B:					
Alton	80	Slight		Slight	
201C:					
Alton	80	Slight		Slight	
201D:					
Alton	80	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
210A:					
Merrimac	75	Slight		Slight	
210B:					
Merrimac	75	Slight		Slight	
210C:					
Merrimac	75	Slight		Slight	
210D:					
Merrimac	75	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Hazard of off-road or off-trail erosion: Value	Soil rutting hazard: Rating class and limiting features	Soil rutting hazard: Value
211A:					
Burnt Vly-----------	35	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
Humaquepts----------	25	Slight		Severe	
				Depth to saturated zone *	1.00
Pleasant Lake-------	20	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
212A:					
Hinckley------------	80	Slight		Slight	
212B:					
Hinckley------------	80	Slight		Slight	
212C:					
Hinckley------------	80	Slight		Slight	
232A:					
Teel----------------	75	Slight		Moderate	
				Depth to saturated zone *	0.50
244A:					
Darien--------------	75	Slight		Severe	
				Depth to saturated zone *	1.00
244B:					
Darien--------------	75	Slight		Severe	
				Depth to saturated zone *	1.00
363A:					
Adams---------------	85	Slight		Slight	
363B:					
Adams---------------	80	Slight		Slight	
363D:					
Adams---------------	80	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
363F:					
Adams---------------	75	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
365A:					
Naumburg------------	45	Slight		Severe	
				Depth to saturated zone *	1.00
Croghan-------------	35	Slight		Moderate	
				Depth to saturated zone *	0.50

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
368A:					
Searsport	35	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	0.50
Wonsqueak	25	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
Naumburg	20	Slight		Severe	
				Depth to saturated zone *	1.00
375A:					
Colton	45	Slight		Slight	
Adams	40	Slight		Slight	
375C:					
Colton	45	Slight		Slight	
Adams	40	Slight		Slight	
375D:					
Colton	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Adams	35	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
650C:					
Monadnock, very bouldery	35	Slight		Slight	
Adams	30	Slight		Slight	
Colton	20	Slight		Slight	
650D:					
Monadnock, very bouldery	40	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Adams	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Colton	20	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
651C:					
Monadnock, very bouldery	40	Slight		Slight	
Tunbridge, rolling, very bouldery	25	Slight		Slight	
Sabattis, very bouldery	15	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	0.50

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
651D:					
Monadnock, very bouldery	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Tunbridge, hilly, very bouldery	35	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
651F:					
Monadnock, very bouldery	50	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Tunbridge, very bouldery	35	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
653C:					
Monadnock, very bouldery	80	Slight		Slight	
653D:					
Monadnock, very bouldery	80	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
708B:					
Adirondack, very bouldery	35	Slight		Severe	
				Depth to saturated zone *	1.00
Sabattis, very bouldery	30	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	0.50
Tughill, very bouldery	20	Slight		Severe	
				Depth to saturated zone *	1.00
711C:					
Adirondack, very bouldery	40	Slight		Severe	
				Depth to saturated zone *	1.00
Tunbridge, very bouldery	30	Slight		Slight	
Burnt Vly	15	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
721C:					
Becket, very bouldery	40	Slight		Slight	
Tunbridge, very bouldery	25	Slight		Slight	
Skerry, very bouldery	20	Slight		Moderate	
				Depth to saturated zone *	0.50
721D:					
Becket, very bouldery	50	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Tunbridge, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
721F:					
Becket, very bouldery	50	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Tunbridge, very bouldery	35	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
723C:					
Becket, very bouldery	80	Slight		Slight	
723D:					
Becket, very bouldery	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
725B:					
Skerry, very bouldery	55	Slight		Moderate	
				Depth to saturated zone *	0.50
Becket, very bouldery	30	Slight		Slight	
727B:					
Skerry, very bouldery	45	Slight		Moderate	
				Depth to saturated zone *	0.50
Adirondack, very bouldery	35	Slight		Severe	
				Depth to saturated zone *	1.00

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
741C:					
Potsdam, very bouldery	50	Slight		Slight	
Tunbridge, very bouldery	30	Slight		Slight	
741D:					
Potsdam, very bouldery	50	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Tunbridge, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
743C:					
Potsdam, very bouldery	80	Slight		Slight	
743D:					
Potsdam, very bouldery	80	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
745C:					
Crary, very bouldery	40	Slight		Moderate	
				Depth to saturated zone *	0.50
Potsdam, very bouldery	35	Slight		Slight	
747B:					
Crary, very bouldery	45	Slight		Moderate	
				Depth to saturated zone *	0.50
Adirondack, very bouldery	35	Slight		Severe	
				Depth to saturated zone *	1.00
831C:					
Tunbridge, very bouldery	50	Slight		Slight	
Lyman, very bouldery	25	Slight		Slight	
831D:					
Tunbridge, very bouldery	50	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Lyman, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
831F:					
Tunbridge, very bouldery	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
Lyman, very bouldery	35	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
833C:					
Tunbridge, very bouldery-----------	45	Slight		Moderate	
				Slope	0.40
Adirondack, very bouldery-----------	25	Slight		Severe	
				Depth to saturated zone *	1.00
Lyman, very bouldery	15	Slight		Moderate	
				Slope	0.40
836C:					
Tunbridge, very bouldery-----------	45	Slight		Moderate	
				Slope	0.40
Wonsqueak-----------	20	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
Knob Lock, very bouldery-----------	15	Slight		Moderate	
				Low strength	0.50
				Slope	0.40
851C:					
Lyman, very bouldery	45	Slight		Slight	
Knob Lock, very bouldery-----------	30	Slight		Moderate	
				Low strength	0.50
851D:					
Lyman, very bouldery	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Knob Lock, very bouldery-----------	30	Moderate		Moderate	
		Slope/erodibility	0.50	Low strength	0.50
				Slope	0.40
851F:					
Lyman, very bouldery	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Knob Lock, very bouldery-----------	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
				Low strength	0.50
931D:					
Mundalite, very bouldery-----------	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
Rawsonville, very bouldery	35	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
931F:					
Mundalite, very bouldery	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Rawsonville, very bouldery	35	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
941C:					
Rawsonville, very bouldery	50	Slight		Slight	
Hogback, very bouldery	25	Slight		Slight	
941D:					
Rawsonville, very bouldery	50	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Hogback, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
941F:					
Rawsonville, very bouldery	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Hogback, very bouldery	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
1018B:					
Colton	75	Slight		Slight	
1018C:					
Colton	75	Slight		Slight	
1018D:					
Colton	80	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
1022A:					
Croghan	80	Slight		Moderate	
				Depth to saturated zone *	0.50
1023A:					
Naumburg	80	Slight		Severe	
				Depth to saturated zone *	1.00

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Hazard of off-road or off-trail erosion: Value	Soil rutting hazard: Rating class and limiting features	Soil rutting hazard: Value
1024A:					
Searsport-----------	75	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	0.50
1025A:					
Adams---------------	85	Slight		Slight	
1025B:					
Adams---------------	85	Slight		Slight	
1025C:					
Adams---------------	85	Slight		Slight	
1025E:					
Adams---------------	80	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
1025F:					
Adams---------------	80	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
1027B:					
Allagash------------	75	Slight		Slight	
1027C:					
Allagash------------	80	Slight		Slight	
1027E:					
Allagash------------	80	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
1070B:					
Berkshire, very bouldery-----------	75	Slight		Slight	
1070C:					
Berkshire, very bouldery-----------	70	Slight		Slight	
1070E:					
Berkshire, very bouldery-----------	70	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
1075B:					
Potsdam, very bouldery-----------	80	Slight		Slight	
1075C:					
Potsdam, very bouldery-----------	80	Slight		Slight	
1078B:					
Crary, very bouldery	80	Slight		Moderate	
				Depth to saturated zone *	0.50

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
1080B:					
Becket, very bouldery	80	Slight		Slight	
1080C:					
Becket, very bouldery	80	Slight		Slight	
1080E:					
Becket, very bouldery	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
1081B:					
Skerry, very bouldery	80	Slight		Moderate	
				Depth to saturated zone *	0.50
1081C:					
Skerry, very bouldery	80	Slight		Moderate	
				Depth to saturated zone *	0.50
1091C:					
Lyman, very bouldery	35	Slight		Slight	
Becket, very bouldery	30	Slight		Slight	
Tunbridge, very bouldery	20	Slight		Slight	
1091E:					
Lyman, very bouldery	35	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Becket, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Tunbridge, very bouldery	20	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
1118C:					
Adams	55	Slight		Slight	
Colton	30	Slight		Slight	
1118D:					
Adams	50	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Colton	35	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
1170B:					
Henniker	75	Slight		Slight	

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Hazard of off-road or off-trail erosion: Value	Soil rutting hazard: Rating class and limiting features	Soil rutting hazard: Value
1170C:					
Henniker------------	80	Slight		Slight	
1170E:					
Henniker------------	85	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
1171B:					
Metacomet-----------	80	Slight		Moderate	
				Depth to saturated zone *	0.50
1171C:					
Metacomet-----------	80	Slight		Moderate	
				Depth to saturated zone *	0.50
1172B:					
Pillsbury, somewhat poorly drained-----	75	Slight		Severe	
				Depth to saturated zone *	1.00
1178A:					
Adirondack, very bouldery-----------	80	Slight		Severe	
				Depth to saturated zone *	1.00
1178B:					
Adirondack, very bouldery-----------	75	Slight		Severe	
				Depth to saturated zone *	1.00
1185A:					
Wonsqueak, undrained	85	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
1190C:					
Tunbridge, very bouldery-----------	50	Slight		Slight	
Lyman, very bouldery	25	Slight		Slight	
1190E:					
Tunbridge, very bouldery-----------	50	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Lyman, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
1190F:					
Tunbridge, very bouldery-----------	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Lyman, very bouldery	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
1193A:					
Wonsqueak	60	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	1.00
Humaquepts, frequently flooded	30	Slight		Severe	
				Depth to saturated zone *	1.00
1291C:					
Becket, very bouldery	35	Slight		Slight	
Lyman, very bouldery	25	Slight		Slight	
Tunbridge, very bouldery	20	Slight		Slight	
1291D:					
Becket, very bouldery	40	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Lyman, very bouldery	25	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Tunbridge, very bouldery	20	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
1292C:					
Becket, very bouldery	50	Slight		Slight	
Tunbridge, very bouldery	25	Slight		Slight	
1292E:					
Becket, very bouldery	50	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Tunbridge, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
1292F:					
Becket, very bouldery	55	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Tunbridge, very bouldery	30	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
1293C:					
Skerry, very bouldery	55	Slight		Moderate	
				Depth to saturated zone *	0.50

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
Tunbridge, very bouldery	25	Slight		Slight	
1380C:					
Becket, very bouldery	45	Slight		Slight	
Skerry, very bouldery	40	Slight		Moderate	
				Depth to saturated zone *	0.50
1391C:					
Lyman, very bouldery	40	Slight		Slight	
Tunbridge, very bouldery	30	Slight		Slight	
Rock outcrop	15	Not rated		Not rated	
1391D:					
Lyman, very bouldery	45	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Tunbridge, very bouldery	30	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
Rock outcrop	15	Not rated		Not rated	
1580B:					
Adirondack, very bouldery	50	Slight		Severe	
				Depth to saturated zone *	1.00
Skerry, very bouldery	30	Slight		Moderate	
				Depth to saturated zone *	0.50
1591F:					
Lyman, very bouldery	45	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
Berkshire, very bouldery	35	Severe		Severe	
		Slope/erodibility	1.00	Slope	1.00
1911C:					
Potsdam, very bouldery	60	Slight		Slight	
Lyman, very bouldery	25	Slight		Slight	
1911E:					
Potsdam, very bouldery	60	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
Lyman, very bouldery	25	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
1920B:					
Monadnock, very bouldery	75	Slight		Slight	
1920C:					
Monadnock, very bouldery	80	Slight		Slight	
1920E:					
Monadnock, very bouldery	80	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
1941A:					
Sabattis, very bouldery	75	Slight		Severe	
				Depth to saturated zone *	1.00
				Low strength	0.50
2170B:					
Henniker, very stony	75	Slight		Slight	
2170C:					
Henniker, very stony	80	Slight		Slight	
2170E:					
Henniker, very stony	75	Moderate		Moderate	
		Slope/erodibility	0.50	Slope	0.40
2171B:					
Metacomet, very stony	80	Slight		Moderate	
				Depth to saturated zone *	0.50
2171C:					
Metacomet, very stony	80	Slight		Moderate	
				Depth to saturated zone *	0.50
2172B:					
Pillsbury, very stony	75	Slight		Severe	
				Depth to saturated zone *	1.00
DeB:					
Deerfield	75	Slight		Moderate	
				Depth to saturated zone *	0.50

Table 8.—Hazard of Erosion and Soil Rutting on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Hazard of off-road or off-trail erosion: Value	Soil rutting hazard: Rating class and limiting features	Soil rutting hazard: Value
GP:					
Pits, sand and gravel	80	Not rated		Not rated	

* Depths and duration (months) of seasonal saturation can be found in the Water Table section of the 'Water Features' table.

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.]

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3A:							
Endoaquolls, frequently flooded	55	Very limited		Poorly suited		Poorly suited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone *	1.00
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00		
Hapludolls, frequently flooded	30	Very limited		Poorly suited		Moderately suited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone *	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50		
4C:							
Udorthents, smoothed	75	Not Rated		Not Rated		Not Rated	
5C:							
Udorthents, refuse substratum	70	Not Rated		Not Rated		Not Rated	
6A:							
Saprists, frequently ponded	40	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
Aquents, frequently ponded	35	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	0.50	Depth to saturated zone *	1.00	Low strength	0.50
				Low strength	0.50		
7B:							
Endoaquents, smoothed	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
10A:							
Pleasant Lake	45	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
Burnt Vly	35	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
11B:							
Hinckley	40	Slight		Well suited		Well suited	
Windsor	35	Slight		Well suited		Well suited	
11C:							
Hinckley	40	Slight		Moderately suited		Well suited	
				Slope	0.50		
Windsor	35	Slight		Moderately suited		Well suited	
				Slope	0.50		
11D:							
Hinckley	40	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
Windsor	40	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
11E:							
Hinckley	45	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
Windsor	40	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
13F:							
Lansing	50	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
Mohawk	30	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
16E:							
Broadalbin	75	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
17D:							
Hollis	60	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	0.50
		Slope	0.50				
Rock outcrop	15	Not rated		Not rated		Not rated	
18C:							
Chatfield	50	Somewhat limited		Moderately suited		Well suited	
		Depth to bedrock	0.50	Slope	0.50		
Hollis	30	Very limited		Moderately suited		Well suited	
		Depth to bedrock	1.00	Slope	0.50		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
18D:							
Chatfield	50	Somewhat limited		Poorly suited		Moderately suited	
		Depth to bedrock	0.50	Slope	1.00	Slope	0.50
		Slope	0.50				
Hollis	30	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	0.50
		Slope	0.50				
21B:							
Galway	75	Somewhat limited		Well suited		Well suited	
		Depth to bedrock	0.50				
21C:							
Galway	75	Somewhat limited		Moderately suited		Well suited	
		Depth to bedrock	0.50	Slope	0.50		
22B:							
Georgia	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
24B:							
Farmington	75	Very limited		Well suited		Well suited	
		Depth to bedrock	1.00				
24C:							
Farmington	75	Very limited		Moderately suited		Well suited	
		Depth to bedrock	1.00	Slope	0.50		
25A:							
Wonsqueak, ponded	35	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
Colton	25	Slight		Well suited		Well suited	
Rumney	20	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00	Depth to saturated zone *	1.00
		Flooding	0.50	Flooding	0.50		
25D:							
Farmington, very rocky	70	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	0.50
		Slope	0.50				
32B:							
Mohawk	75	Slight		Well suited		Well suited	
32C:							
Mohawk	75	Slight		Moderately suited		Well suited	
				Slope	0.50		
32D:							
Mohawk	75	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
33B:							
Angola	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
		Depth to bedrock	0.50				
34A:							
Manheim	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
34B:							
Manheim	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
42B:							
Lansing	75	Slight		Well suited		Well suited	
42C:							
Lansing	80	Slight		Moderately suited		Well suited	
				Slope	0.50		
42D:							
Lansing	80	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
44A:							
Appleton	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
44B:							
Appleton	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
47A:							
Ilion	80	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00	Depth to saturated zone *	1.00
47B:							
Ilion	80	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00	Depth to saturated zone *	1.00
49A:							
Fonda	75	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Surface stickiness	0.50	Depth to saturated zone *	1.00	Surface stickiness	0.50
				Surface stickiness	0.50		
72B:							
Broadalbin, well drained	50	Slight		Well suited		Well suited	

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
Broadalbin, moderately well drained	30	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
72C:							
Broadalbin	75	Slight		Moderately suited		Well suited	
				Slope	0.50		
72D:							
Broadalbin	75	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
74A:							
Mosherville	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
74B:							
Mosherville	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
77A:							
Sun	75	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00	Depth to saturated zone *	1.00
81B:							
Charlton	80	Somewhat limited		Well suited		Well suited	
		Sandiness	0.50				
81C:							
Charlton	80	Somewhat limited		Moderately suited		Well suited	
		Sandiness	0.50	Slope	0.50		
81D:							
Charlton	80	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
89A:							
Whitman	75	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
				Depth to saturated zone *	1.00		
90B:							
Palatine	75	Somewhat limited		Well suited		Well suited	
		Depth to bedrock	0.50				
90C:							
Palatine	80	Somewhat limited		Moderately suited		Well suited	
		Depth to bedrock	0.50	Slope	0.50		
90D:							
Palatine	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Depth to bedrock	0.50				

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
94B:							
Paxton	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
94C:							
Paxton	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		
94D:							
Paxton	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
95B:							
Woodbridge	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
96B:							
Ridgebury	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
99A:							
Timakwa, undrained	75	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
109A:							
Catden, undrained	75	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
112A:							
Scio	45	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
Urban land	40	Not rated		Not rated		Not rated	
114B:							
Windsor	60	Slight		Well suited		Well suited	
Urban land	30	Not rated		Not rated		Not rated	
114C:							
Windsor	60	Slight		Moderately suited		Well suited	
				Slope	0.50		
Urban land	30	Not rated		Not rated		Not rated	

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
114D:							
Windsor	60	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
Urban land	30	Not rated		Not rated		Not rated	
115B:							
Udipsamments, smoothed	85	Slight		Well suited		Well suited	
116:							
Urban land	90	Not rated		Not rated		Not rated	
117B:							
Broadalbin, moderately well drained	50	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
Urban land	30	Not rated		Not rated		Not rated	
117C:							
Broadalbin, well drained	45	Slight		Moderately suited		Well suited	
				Slope	0.50		
Urban land	30	Not rated		Not rated		Not rated	
130B:							
Hudson	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
		Surface stickiness	0.50	Surface stickiness	0.50	Surface stickiness	0.50
130C:							
Hudson	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Slope	0.50	Depth to saturated zone *	0.50
		Surface stickiness	0.50	Depth to saturated zone *	0.50	Surface stickiness	0.50
				Surface stickiness	0.50		
134A:							
Rhinebeck	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
		Surface stickiness	0.50	Surface stickiness	0.50	Surface stickiness	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
134B:							
Rhinebeck-----------	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
		Surface stickiness	0.50	Surface stickiness	0.50	Surface stickiness	0.50
135A:							
Churchville---------	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
		Surface stickiness	0.50	Surface stickiness	0.50	Surface stickiness	0.50
135B:							
Churchville---------	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
		Surface stickiness	0.50	Surface stickiness	0.50	Surface stickiness	0.50
137A:							
Madalin-------------	75	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00	Depth to saturated zone *	1.00
		Surface stickiness	0.50	Surface stickiness	0.50	Surface stickiness	0.50
151B:							
Unadilla------------	80	Slight		Well suited		Well suited	
152A:							
Scio----------------	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
152B:							
Scio----------------	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
154A:							
Tonawanda-----------	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
154B:							
Tonawanda-----------	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
157A:							
Birdsall------------	75	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
				Depth to saturated zone *	1.00		
160A:							
Agawam--------------	75	Slight		Well suited		Well suited	

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
160B:							
Agawam	75	Slight		Well suited		Well suited	
162B:							
Ninigret	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
165A:							
Stafford	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
170B:							
Windsor	75	Slight		Well suited		Well suited	
170C:							
Windsor	80	Slight		Moderately suited		Well suited	
				Slope	0.50		
170D:							
Windsor	80	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
179A:							
Scarboro	75	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	0.50	Depth to saturated zone *	1.00	Too sandy	0.50
				Too sandy	0.50	Low strength	0.50
				Low strength	0.50		
182A:							
Elmridge	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
182B:							
Elmridge	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
187A:							
Aeric Epiaquepts, somewhat poorly drained	50	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
Aeric Epiaquepts, poorly drained	30	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00	Depth to saturated zone *	1.00
189A:							
Cheektowaga	75	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
				Depth to saturated zone *	1.00		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
197A:							
Fredon, somewhat poorly drained	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
201B:							
Alton	80	Slight		Well suited		Well suited	
201C:							
Alton	80	Slight		Moderately suited		Well suited	
				Slope	0.50		
201D:							
Alton	80	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
210A:							
Merrimac	75	Slight		Well suited		Well suited	
210B:							
Merrimac	75	Slight		Well suited		Well suited	
210C:							
Merrimac	75	Slight		Moderately suited		Well suited	
				Slope	0.50		
210D:							
Merrimac	75	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
211A:							
Burnt Vly	35	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
Humaquepts	25	Very limited		Poorly suited		Poorly suited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone *	1.00
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00		
Pleasant Lake	20	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
212A:							
Hinckley	80	Slight		Well suited		Well suited	
212B:							
Hinckley	80	Slight		Well suited		Well suited	
212C:							
Hinckley	80	Slight		Moderately suited		Well suited	
				Slope	0.50		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
232A:							
Teel	75	Somewhat limited		Moderately suited		Moderately suited	
		Flooding	0.50	Flooding	0.50	Depth to saturated zone *	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50		
244A:							
Darien	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
244B:							
Darien	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
363A:							
Adams	85	Slight		Well suited		Well suited	
363B:							
Adams	80	Slight		Well suited		Well suited	
363D:							
Adams	80	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
363F:							
Adams	75	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Sandiness	0.50				
365A:							
Naumburg	45	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
Croghan	35	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
368A:							
Searsport	35	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	0.50	Depth to saturated zone *	1.00	Low strength	0.50
				Low strength	0.50		
Wonsqueak	25	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
Naumburg	20	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
375A:							
Colton	45	Slight		Well suited		Well suited	
Adams	40	Slight		Well suited		Well suited	
375C:							
Colton	45	Slight		Moderately suited		Well suited	
				Slope	0.50		
Adams	40	Slight		Moderately suited		Well suited	
				Slope	0.50		
375D:							
Colton	45	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
Adams	35	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
650C:							
Monadnock, very bouldery	35	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
Adams	30	Slight		Moderately suited		Well suited	
				Slope	0.50		
Colton	20	Slight		Moderately suited		Well suited	
				Slope	0.50		
650D:							
Monadnock, very bouldery	40	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
Adams	30	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
Colton	20	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
651C:							
Monadnock, very bouldery	40	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
Tunbridge, rolling, very bouldery	25	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
Sabattis, very bouldery	15	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Rock fragments	0.50	Depth to saturated zone *	1.00	Rock fragments	0.50
		Low strength	0.50	Rock fragments	0.50	Low strength	0.50
				Low strength	0.50		
651D:							
Monadnock, very bouldery	45	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
Tunbridge, hilly, very bouldery	35	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
651F:							
Monadnock, very bouldery	50	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
Tunbridge, very bouldery	35	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
653C:							
Monadnock, very bouldery	80	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
653D:							
Monadnock, very bouldery	80	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
708B:							
Adirondack, very bouldery	35	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
Sabattis, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Rock fragments	0.50	Depth to saturated zone *	1.00	Rock fragments	0.50
		Low strength	0.50	Rock fragments	0.50	Low strength	0.50
				Low strength	0.50		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
Tughill, very bouldery	20	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Rock fragments	0.50	Depth to saturated zone *	1.00	Rock fragments	0.50
				Rock fragments	0.50		
711C:							
Adirondack, very bouldery	40	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
				Slope	0.50		
Tunbridge, very bouldery	30	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
Burnt Vly	15	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
721C:							
Becket, very bouldery	40	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		
Tunbridge, very bouldery	25	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
Skerry, very bouldery	20	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
721D:							
Becket, very bouldery	50	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
Tunbridge, very bouldery	30	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
721F:							
Becket, very bouldery	50	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
Tunbridge, very bouldery	35	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
723C:							
Becket, very bouldery	80	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		
723D:							
Becket, very bouldery	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
725B:							
Skerry, very bouldery	55	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
Becket, very bouldery	30	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		
727B:							
Skerry, very bouldery	45	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
Adirondack, very bouldery	35	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
741C:							
Potsdam, very bouldery	50	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
Tunbridge, very bouldery	30	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
741D:							
Potsdam, very bouldery	50	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
Tunbridge, very bouldery	30	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
743C:							
Potsdam, very bouldery	80	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
743D:							
Potsdam, very bouldery	80	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
745C:							
Crary, very bouldery	40	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
				Slope	0.50		
Potsdam, very bouldery	35	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
747B:							
Crary, very bouldery	45	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
Adirondack, very bouldery	35	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
831C:							
Tunbridge, very bouldery	50	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
Lyman, very bouldery	25	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
831D:							
Tunbridge, very bouldery	50	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
Lyman, very bouldery	30	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
831F:							
Tunbridge, very bouldery	45	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
Lyman, very bouldery	35	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
833C:							
Tunbridge, very bouldery	45	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Slope	0.50	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50		
Adirondack, very bouldery	25	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
Lyman, very bouldery	15	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Slope	0.50	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50		
836C:							
Tunbridge, very bouldery	45	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Slope	0.50	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50		
Wonsqueak	20	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
Knob Lock, very bouldery	15	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Slope	0.50	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Low strength	0.50
		Low strength	0.50	Low strength	0.50		
851C:							
Lyman, very bouldery	45	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
Knob Lock, very bouldery	30	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Low strength	0.50	Low strength	0.50
		Low strength	0.50	Slope	0.50		
851D:							
Lyman, very bouldery	45	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
Knob Lock, very bouldery	30	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Low strength	0.50
		Rock fragments	0.50	Low strength	0.50	Slope	0.50
		Low strength	0.50				
851F:							
Lyman, very bouldery	45	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
Knob Lock, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Low strength	0.50	Low strength	0.50
		Low strength	0.50				
931D:							
Mundalite, very bouldery	45	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
Rawsonville, very bouldery	35	Somewhat limited		Poorly suited		Moderately suited	
		Depth to bedrock	0.50	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
931F:							
Mundalite, very bouldery	45	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
Rawsonville, very bouldery	35	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
941C:							
Rawsonville, very bouldery	50	Somewhat limited		Moderately suited		Moderately suited	
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
Hogback, very bouldery	25	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
941D:							
Rawsonville, very bouldery	50	Somewhat limited		Poorly suited		Moderately suited	
		Depth to bedrock	0.50	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
Hogback, very bouldery	30	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
941F:							
Rawsonville, very bouldery	45	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	0.50	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
Hogback, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
1018B:							
Colton	75	Slight		Well suited		Well suited	
1018C:							
Colton	75	Slight		Moderately suited		Well suited	
				Slope	0.50		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1018D:							
Colton	80	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
1022A:							
Croghan	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
1023A:							
Naumburg	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
1024A:							
Searsport	75	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	0.50	Depth to saturated zone *	1.00	Low strength	0.50
				Low strength	0.50		
1025A:							
Adams	85	Slight		Well suited		Well suited	
1025B:							
Adams	85	Slight		Well suited		Well suited	
1025C:							
Adams	85	Slight		Moderately suited		Well suited	
				Slope	0.50		
1025E:							
Adams	80	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
1025F:							
Adams	80	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Sandiness	0.50				
1027B:							
Allagash	75	Slight		Well suited		Well suited	
1027C:							
Allagash	80	Slight		Moderately suited		Well suited	
				Slope	0.50		
1027E:							
Allagash	80	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
1070B:							
Berkshire, very bouldery	75	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
1070C:							
Berkshire, very bouldery-----------	70	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
1070E:							
Berkshire, very bouldery-----------	70	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
1075B:							
Potsdam, very bouldery-----------	80	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
1075C:							
Potsdam, very bouldery-----------	80	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
1078B:							
Crary, very bouldery	80	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
1080B:							
Becket, very bouldery-----------	80	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
1080C:							
Becket, very bouldery-----------	80	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		
1080E:							
Becket, very bouldery-----------	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
1081B:							
Skerry, very bouldery-----------	80	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads		Suitability for log landings		Suitability for operation of harvest equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1081C:							
Skerry, very bouldery	80	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Slope	0.50	Depth to saturated zone *	0.50
				Depth to saturated zone *	0.50		
1091C:							
Lyman, very bouldery	35	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
Becket, very bouldery	30	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		
Tunbridge, very bouldery	20	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
1091E:							
Lyman, very bouldery	35	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
Becket, very bouldery	30	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
Tunbridge, very bouldery	20	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
1118C:							
Adams	55	Slight		Moderately suited		Well suited	
				Slope	0.50		
Colton	30	Slight		Moderately suited		Well suited	
				Slope	0.50		
1118D:							
Adams	50	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				
Colton	35	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Sandiness	0.50				

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
1170B:							
Henniker	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
1170C:							
Henniker	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		
1170E:							
Henniker	85	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
1171B:							
Metacomet	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
1171C:							
Metacomet	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Slope	0.50	Depth to saturated zone *	0.50
				Depth to saturated zone *	0.50		
1172B:							
Pillsbury, somewhat poorly drained	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
1178A:							
Adirondack, very bouldery	80	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
1178B:							
Adirondack, very bouldery	75	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
1185A:							
Wonsqueak, undrained	85	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
1190C:							
Tunbridge, very bouldery	50	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
Lyman, very bouldery	25	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
1190E:							
Tunbridge, very bouldery	50	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
Lyman, very bouldery	30	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
1190F:							
Tunbridge, very bouldery	45	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
Lyman, very bouldery	30	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
1193A:							
Wonsqueak	60	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Low strength	1.00	Depth to saturated zone *	1.00	Low strength	1.00
				Low strength	1.00		
Humaquepts, frequently flooded	30	Very limited		Poorly suited		Poorly suited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone *	1.00
		Depth to saturated zone *	1.00	Depth to saturated zone *	1.00		
1291C:							
Becket, very bouldery	35	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		
Lyman, very bouldery	25	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
Tunbridge, very bouldery	20	Very limited Depth to bedrock Rock fragments	 1.00 0.50	Moderately suited Rock fragments Slope	 0.50 0.50	Moderately suited Rock fragments	 0.50
1291D:							
Becket, very bouldery	40	Somewhat limited Slope Rock fragments Depth to saturated zone *	 0.50 0.50 0.30	Poorly suited Slope Rock fragments Depth to saturated zone *	 1.00 0.50 0.30	Moderately suited Rock fragments Slope Depth to saturated zone *	 0.50 0.50 0.30
Lyman, very bouldery	25	Very limited Depth to bedrock Slope Rock fragments	 1.00 0.50 0.50	Poorly suited Slope Rock fragments	 1.00 0.50	Moderately suited Rock fragments Slope	 0.50 0.50
Tunbridge, very bouldery	20	Very limited Depth to bedrock Slope Rock fragments	 1.00 0.50 0.50	Poorly suited Slope Rock fragments	 1.00 0.50	Moderately suited Rock fragments Slope	 0.50 0.50
1292C:							
Becket, very bouldery	50	Somewhat limited Rock fragments Depth to saturated zone *	 0.50 0.30	Moderately suited Rock fragments Slope Depth to saturated zone *	 0.50 0.50 0.30	Moderately suited Rock fragments Depth to saturated zone *	 0.50 0.30
Tunbridge, very bouldery	25	Very limited Depth to bedrock Rock fragments	 1.00 0.50	Moderately suited Rock fragments Slope	 0.50 0.50	Moderately suited Rock fragments	 0.50
1292E:							
Becket, very bouldery	50	Somewhat limited Slope Rock fragments Depth to saturated zone *	 0.50 0.50 0.30	Poorly suited Slope Rock fragments Depth to saturated zone *	 1.00 0.50 0.30	Moderately suited Rock fragments Slope Depth to saturated zone *	 0.50 0.50 0.30
Tunbridge, very bouldery	30	Very limited Depth to bedrock Slope Rock fragments	 1.00 0.50 0.50	Poorly suited Slope Rock fragments	 1.00 0.50	Moderately suited Rock fragments Slope	 0.50 0.50
1292F:							
Becket, very bouldery	55	Very limited Slope Rock fragments Depth to saturated zone *	 1.00 0.50 0.30	Poorly suited Slope Rock fragments Depth to saturated zone *	 1.00 0.50 0.30	Poorly suited Slope Rock fragments Depth to saturated zone *	 1.00 0.50 0.30

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
Tunbridge, very bouldery-----------	30	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
1293C:							
Skerry, very bouldery-----------	55	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
				Slope	0.50		
Tunbridge, very bouldery-----------	25	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
1380C:							
Becket, very bouldery-----------	45	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		
Skerry, very bouldery-----------	40	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
				Slope	0.50		
1391C:							
Lyman, very bouldery	40	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
Tunbridge, very bouldery-----------	30	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
Rock outcrop--------	15	Not rated		Not rated		Not rated	
1391D:							
Lyman, very bouldery	45	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
Tunbridge, very bouldery-----------	30	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
Rock outcrop--------	15	Not rated		Not rated		Not rated	

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
1580B:							
Adirondack, very bouldery	50	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
Skerry, very bouldery	30	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
1591F:							
Lyman, very bouldery	45	Very limited		Poorly suited		Poorly suited	
		Depth to bedrock	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50				
Berkshire, very bouldery	35	Very limited		Poorly suited		Poorly suited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
1911C:							
Potsdam, very bouldery	60	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
Lyman, very bouldery	25	Very limited		Moderately suited		Moderately suited	
		Depth to bedrock	1.00	Rock fragments	0.50	Rock fragments	0.50
		Rock fragments	0.50	Slope	0.50		
1911E:							
Potsdam, very bouldery	60	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50
Lyman, very bouldery	25	Very limited		Poorly suited		Moderately suited	
		Depth to bedrock	1.00	Slope	1.00	Rock fragments	0.50
		Slope	0.50	Rock fragments	0.50	Slope	0.50
		Rock fragments	0.50				
1920B:							
Monadnock, very bouldery	75	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
1920C:							
Monadnock, very bouldery	80	Somewhat limited		Moderately suited		Moderately suited	
		Rock fragments	0.50	Rock fragments	0.50	Rock fragments	0.50
				Slope	0.50		
1920E:							
Monadnock, very bouldery	80	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Rock fragments	0.50
		Rock fragments	0.50	Rock fragments	0.50	Slope	0.50

Table 9.—Haul Roads, Log Landings, and Harvest Equipment Operation on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Suitability for operation of harvest equipment: Rating class and limiting features	Value
1941A:							
Sabattis, very bouldery	75	Very limited		Poorly suited		Poorly suited	
		Depth to saturated zone *	1.00	Ponding	1.00	Depth to saturated zone *	1.00
		Rock fragments	0.50	Depth to saturated zone *	1.00	Rock fragments	0.50
		Low strength	0.50	Rock fragments	0.50	Low strength	0.50
				Low strength	0.50		
2170B:							
Henniker, very stony	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
2170C:							
Henniker, very stony	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.30	Slope	0.50	Depth to saturated zone *	0.30
				Depth to saturated zone *	0.30		
2170E:							
Henniker, very stony	75	Somewhat limited		Poorly suited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
		Depth to saturated zone *	0.30	Depth to saturated zone *	0.30	Depth to saturated zone *	0.30
2171B:							
Metacomet, very stony	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
2171C:							
Metacomet, very stony	80	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Slope	0.50	Depth to saturated zone *	0.50
				Depth to saturated zone *	0.50		
2172B:							
Pillsbury, very stony	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
DeB:							
Deerfield	75	Somewhat limited		Moderately suited		Moderately suited	
		Depth to saturated zone *	0.50	Depth to saturated zone *	0.50	Depth to saturated zone *	0.50
GP:							
Pits, sand and gravel	80	Not rated		Not rated		Not rated	

* Depths and duration (months) of seasonal saturation can be found in the Water Table section of the 'Water Features' table.

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.]

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
3A:					
Endoaquolls, frequently flooded	55	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
Hapludolls, frequently flooded	30	High		Moderate	
		Flooding/ponding	1.00	Depth to saturated zone	0.20
4C:					
Udorthents, smoothed	75	Not Rated		Not rated	
5C:					
Udorthents, refuse substratum	70	Not Rated		Not rated	
6A:					
Saprists, frequently ponded	40	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
Aquents, frequently ponded	35	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
7B:					
Endoaquents, smoothed	75	Low		High	
				Depth to saturated zone	1.00
10A:					
Pleasant Lake	45	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
Burnt Vly	35	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
11B:					
Hinckley	40	Moderate		Low	
		Droughty	0.50		
Windsor	35	Low		Low	

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
11C:					
Hinckley	40	Moderate		Low	
		Droughty	0.50		
Windsor	35	Low		Low	
11D:					
Hinckley	40	Moderate		Low	
		Droughty	0.50		
Windsor	40	Low		Low	
11E:					
Hinckley	45	Moderate		Low	
		Droughty	0.50		
Windsor	40	Low		Low	
13F:					
Lansing	50	Low		Low	
Mohawk	30	Low		Low	
16E:					
Broadalbin	75	Low		Moderate	
				Depth to dense layer	0.66
17D:					
Hollis	60	Low		High	
				Depth to bedrock	1.00
Rock outcrop	15	Not rated		Not rated	
18C:					
Chatfield	50	Low		Moderate	
				Depth to bedrock	0.50
Hollis	30	Low		High	
				Depth to bedrock	1.00
18D:					
Chatfield	50	Low		Moderate	
				Depth to bedrock	0.50
Hollis	30	Low		High	
				Depth to bedrock	1.00
21B:					
Galway	75	Low		Moderate	
				Depth to bedrock	0.50
21C:					
Galway	75	Low		Moderate	
				Depth to bedrock	0.50
22B:					
Georgia	75	Low		Moderate	
				Depth to saturated zone	0.20

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
24B:					
Farmington	75	Moderate		High	
		Droughty	0.50	Depth to bedrock	1.00
24C:					
Farmington	75	Moderate		High	
		Droughty	0.50	Depth to bedrock	1.00
25A:					
Wonsqueak, ponded	35	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
Colton	25	Moderate		Low	
		Droughty	0.50		
Rumney	20	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
25D:					
Farmington, very rocky	70	Moderate		High	
		Droughty	0.50	Depth to bedrock	1.00
32B:					
Mohawk	75	Low		Low	
32C:					
Mohawk	75	Low		Low	
32D:					
Mohawk	75	Low		Low	
33B:					
Angola	75	Low		High	
				Depth to saturated zone	1.00
				Depth to bedrock	0.50
34A:					
Manheim	80	Low		High	
				Depth to saturated zone	1.00
34B:					
Manheim	80	Low		High	
				Depth to saturated zone	1.00
42B:					
Lansing	75	Low		Low	
42C:					
Lansing	80	Low		Low	
42D:					
Lansing	80	Low		Low	

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
44A:					
Appleton	80	Low		High	
				Depth to saturated zone	1.00
44B:					
Appleton	80	Low		High	
				Depth to saturated zone	1.00
47A:					
Ilion	80	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
47B:					
Ilion	80	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
49A:					
Fonda	75	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
72B:					
Broadalbin, well drained	50	Low		Moderate	
				Depth to dense layer	0.66
Broadalbin, moderately well drained	30	Low		Moderate	
				Depth to dense layer	0.66
				Depth to saturated zone	0.20
72C:					
Broadalbin	75	Low		Moderate	
				Depth to dense layer	0.66
72D:					
Broadalbin	75	Low		Moderate	
				Depth to dense layer	0.66
74A:					
Mosherville	80	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.95
74B:					
Mosherville	75	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.95

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Potential for seedling mortality: Value	Potential for windthrow: Rating class and limiting features	Potential for windthrow: Value
77A:					
Sun	75	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Depth to dense layer	0.48
81B:					
Charlton	80	Low		Low	
81C:					
Charlton	80	Low		Low	
81D:					
Charlton	80	Low		Low	
89A:					
Whitman	75	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00	Depth to dense layer	0.98
90B:					
Palatine	75	Low		Moderate	
				Depth to bedrock	0.50
90C:					
Palatine	80	Low		Moderate	
				Depth to bedrock	0.50
90D:					
Palatine	85	Low		Moderate	
				Depth to bedrock	0.50
94B:					
Paxton	75	Low		Moderate	
				Depth to dense layer	0.48
94C:					
Paxton	80	Low		Moderate	
				Depth to dense layer	0.48
94D:					
Paxton	85	Low		Moderate	
				Depth to dense layer	0.48
95B:					
Woodbridge	75	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
96B:					
Ridgebury	80	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.48
99A:					
Timakwa, undrained	75	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
109A:					
Catden, undrained	75	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
112A:					
Scio	45	Low		Moderate	
				Depth to saturated zone	0.20
Urban land	40	Not rated		Not rated	
114B:					
Windsor	60	Low		Low	
Urban land	30	Not rated		Not rated	
114C:					
Windsor	60	Low		Low	
Urban land	30	Not rated		Not rated	
114D:					
Windsor	60	Low		Low	
Urban land	30	Not rated		Not rated	
115B:					
Udipsamments, smoothed	85	Moderate		Low	
		Droughty	0.50		
116:					
Urban land	90	Not rated		Not rated	
117B:					
Broadalbin, moderately well drained	50	Low		Moderate	
				Depth to dense layer	0.66
				Depth to saturated zone	0.20

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality		Potential for windthrow	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Urban land	30	Not rated		Not rated	
117C:					
Broadalbin, well drained	45	Low		Moderate	
				Depth to dense layer	0.66
Urban land	30	Not rated		Not rated	
130B:					
Hudson	75	Low		Moderate	
				Depth to saturated zone	0.20
130C:					
Hudson	80	Low		Moderate	
				Depth to saturated zone	0.20
134A:					
Rhinebeck	75	Low		High	
				Depth to saturated zone	1.00
134B:					
Rhinebeck	75	Low		High	
				Depth to saturated zone	1.00
135A:					
Churchville	80	Low		High	
				Depth to saturated zone	1.00
135B:					
Churchville	75	Low		High	
				Depth to saturated zone	1.00
137A:					
Madalin	75	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
151B:					
Unadilla	80	Low		Low	
152A:					
Scio	80	Low		Moderate	
				Depth to saturated zone	0.20
152B:					
Scio	80	Low		Moderate	
				Depth to saturated zone	0.20

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
154A:					
Tonawanda	80	Low		High	
				Depth to saturated zone	1.00
154B:					
Tonawanda	80	Low		High	
				Depth to saturated zone	1.00
157A:					
Birdsall	75	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
160A:					
Agawam	75	Low		Low	
160B:					
Agawam	75	Low		Low	
162B:					
Ninigret	75	Low		Moderate	
				Depth to saturated zone	0.20
165A:					
Stafford	80	Low		High	
				Depth to saturated zone	1.00
170B:					
Windsor	75	Low		Low	
170C:					
Windsor	80	Low		Low	
170D:					
Windsor	80	Low		Low	
179A:					
Scarboro	75	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
182A:					
Elmridge	75	Low		Moderate	
				Depth to saturated zone	0.20
182B:					
Elmridge	75	Low		Moderate	
				Depth to saturated zone	0.20
187A:					
Aeric Epiaquepts, somewhat poorly drained	50	Low		High	
				Depth to saturated zone	1.00

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
Aeric Epiaquepts, poorly drained	30	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
189A:					
Cheektowaga	75	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
197A:					
Fredon, somewhat poorly drained	75	Low		High	
				Depth to saturated zone	1.00
201B:					
Alton	80	Low		Low	
201C:					
Alton	80	Low		Low	
201D:					
Alton	80	Low		Low	
210A:					
Merrimac	75	Low		Low	
210B:					
Merrimac	75	Low		Low	
210C:					
Merrimac	75	Low		Low	
210D:					
Merrimac	75	Low		Low	
211A:					
Burnt Vly	35	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
Humaquepts	25	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
Pleasant Lake	20	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
212A:					
Hinckley	80	Moderate		Low	
		Droughty	0.50		
212B:					
Hinckley	80	Moderate		Low	
		Droughty	0.50		

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
212C:					
Hinckley	80	Moderate		Low	
		Droughty	0.50		
232A:					
Teel	75	Low		Moderate	
				Depth to saturated zone	0.20
244A:					
Darien	75	Low		High	
				Depth to saturated zone	1.00
244B:					
Darien	75	Low		High	
				Depth to saturated zone	1.00
363A:					
Adams	85	Low		Low	
363B:					
Adams	80	Low		Low	
363D:					
Adams	80	Low		Low	
363F:					
Adams	75	Low		Low	
365A:					
Naumburg	45	Low		High	
				Depth to saturated zone	1.00
Croghan	35	Low		Moderate	
				Depth to saturated zone	0.20
368A:					
Searsport	35	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
Wonsqueak	25	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
Naumburg	20	Low		High	
				Depth to saturated zone	1.00
375A:					
Colton	45	Moderate		Low	
		Droughty	0.50		
Adams	40	Low		Low	

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
375C:					
Colton	45	Moderate		Low	
		Droughty	0.50		
Adams	40	Low		Low	
375D:					
Colton	45	Moderate		Low	
		Droughty	0.50		
Adams	35	Low		Low	
650C:					
Monadnock, very bouldery	35	Low		Low	
Adams	30	Low		Low	
Colton	20	Moderate		Low	
		Droughty	0.50		
650D:					
Monadnock, very bouldery	40	Low		Low	
Adams	30	Low		Low	
Colton	20	Moderate		Low	
		Droughty	0.50		
651C:					
Monadnock, very bouldery	40	Low		Low	
Tunbridge, rolling, very bouldery	25	Low		Moderate	
				Depth to bedrock	0.50
Sabattis, very bouldery	15	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
651D:					
Monadnock, very bouldery	45	Low		Low	
Tunbridge, hilly, very bouldery	35	Low		Moderate	
				Depth to bedrock	0.50
651F:					
Monadnock, very bouldery	50	Low		Low	
Tunbridge, very bouldery	35	Low		Moderate	
				Depth to bedrock	0.50

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
653C:					
Monadnock, very bouldery	80	Low		Low	
653D:					
Monadnock, very bouldery	80	Low		Low	
708B:					
Adirondack, very bouldery	35	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.87
Sabattis, very bouldery	30	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
Tughill, very bouldery	20	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
711C:					
Adirondack, very bouldery	40	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.87
Tunbridge, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50
Burnt Vly	15	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
721C:					
Becket, very bouldery	40	Low		Moderate	
				Depth to dense layer	0.48
Tunbridge, very bouldery	25	Low		Moderate	
				Depth to bedrock	0.50
Skerry, very bouldery	20	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Potential for seedling mortality: Value	Potential for windthrow: Rating class and limiting features	Potential for windthrow: Value
721D:					
Becket, very bouldery	50	Low		Moderate	
				Depth to dense layer	0.48
Tunbridge, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50
721F:					
Becket, very bouldery	50	Low		Moderate	
				Depth to dense layer	0.48
Tunbridge, very bouldery	35	Low		Moderate	
				Depth to bedrock	0.50
723C:					
Becket, very bouldery	80	Low		Moderate	
				Depth to dense layer	0.48
723D:					
Becket, very bouldery	85	Low		Moderate	
				Depth to dense layer	0.48
725B:					
Skerry, very bouldery	55	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
Becket, very bouldery	30	Low		Moderate	
				Depth to dense layer	0.48
727B:					
Skerry, very bouldery	45	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
Adirondack, very bouldery	35	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.87

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Potential for seedling mortality: Value	Potential for windthrow: Rating class and limiting features	Potential for windthrow: Value
741C:					
Potsdam, very bouldery	50	Low		Moderate	
				Depth to dense layer	0.48
Tunbridge, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50
741D:					
Potsdam, very bouldery	50	Low		Moderate	
				Depth to dense layer	0.48
Tunbridge, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50
743C:					
Potsdam, very bouldery	80	Low		Moderate	
				Depth to dense layer	0.48
743D:					
Potsdam, very bouldery	80	Low		Moderate	
				Depth to dense layer	0.48
745C:					
Crary, very bouldery	40	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
Potsdam, very bouldery	35	Low		Moderate	
				Depth to dense layer	0.48
747B:					
Crary, very bouldery	45	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
Adirondack, very bouldery	35	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.87
831C:					
Tunbridge, very bouldery	50	Low		Moderate	
				Depth to bedrock	0.50

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
Lyman, very bouldery	25	Low		High	
				Depth to bedrock	1.00
831D:					
Tunbridge, very bouldery	50	Low		Moderate	
				Depth to bedrock	0.50
Lyman, very bouldery	30	Low		High	
				Depth to bedrock	1.00
831F:					
Tunbridge, very bouldery	45	Low		Moderate	
				Depth to bedrock	0.50
Lyman, very bouldery	35	Low		High	
				Depth to bedrock	1.00
833C:					
Tunbridge, very bouldery	45	Low		Moderate	
				Depth to bedrock	0.50
Adirondack, very bouldery	25	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.87
Lyman, very bouldery	15	Low		High	
				Depth to bedrock	1.00
836C:					
Tunbridge, very bouldery	45	Low		Moderate	
				Depth to bedrock	0.50
Wonsqueak	20	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
Knob Lock, very bouldery	15	Low		High	
				Depth to bedrock	1.00
851C:					
Lyman, very bouldery	45	Low		High	
				Depth to bedrock	1.00
Knob Lock, very bouldery	30	Low		High	
				Depth to bedrock	1.00
851D:					
Lyman, very bouldery	45	Low		High	
				Depth to bedrock	1.00

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
Knob Lock, very bouldery	30	Low		High	
				Depth to bedrock	1.00
851F:					
Lyman, very bouldery	45	Low		High	
				Depth to bedrock	1.00
Knob Lock, very bouldery	30	Low		High	
				Depth to bedrock	1.00
931D:					
Mundalite, very bouldery	45	Low		Moderate	
				Depth to dense layer	0.11
Rawsonville, very bouldery	35	Low		Moderate	
				Depth to bedrock	0.50
931F:					
Mundalite, very bouldery	45	Low		Moderate	
				Depth to dense layer	0.11
Rawsonville, very bouldery	35	Low		Moderate	
				Depth to bedrock	0.50
941C:					
Rawsonville, very bouldery	50	Low		Moderate	
				Depth to bedrock	0.50
Hogback, very bouldery	25	Low		High	
				Depth to bedrock	1.00
941D:					
Rawsonville, very bouldery	50	Low		Moderate	
				Depth to bedrock	0.50
Hogback, very bouldery	30	Low		High	
				Depth to bedrock	1.00
941F:					
Rawsonville, very bouldery	45	Low		Moderate	
				Depth to bedrock	0.50
Hogback, very bouldery	30	Low		High	
				Depth to bedrock	1.00
1018B:					
Colton	75	Moderate		Low	
		Droughty	0.50		

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
1018C:					
Colton	75	Moderate		Low	
		Droughty	0.50		
1018D:					
Colton	80	Moderate		Low	
		Droughty	0.50		
1022A:					
Croghan	80	Low		Moderate	
				Depth to saturated zone	0.20
1023A:					
Naumburg	80	Low		High	
				Depth to saturated zone	1.00
1024A:					
Searsport	75	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
1025A:					
Adams	85	Low		Low	
1025B:					
Adams	85	Low		Low	
1025C:					
Adams	85	Low		Low	
1025E:					
Adams	80	Low		Low	
1025F:					
Adams	80	Low		Low	
1027B:					
Allagash	75	Low		Low	
1027C:					
Allagash	80	Low		Low	
1027E:					
Allagash	80	Low		Low	
1070B:					
Berkshire, very bouldery	75	Low		Low	
1070C:					
Berkshire, very bouldery	70	Low		Low	
1070E:					
Berkshire, very bouldery	70	Low		Low	

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
1075B:					
Potsdam, very bouldery	80	Low		Moderate	
				Depth to dense layer	0.48
1075C:					
Potsdam, very bouldery	80	Low		Moderate	
				Depth to dense layer	0.48
1078B:					
Crary, very bouldery	80	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
1080B:					
Becket, very bouldery	80	Low		Moderate	
				Depth to dense layer	0.48
1080C:					
Becket, very bouldery	80	Low		Moderate	
				Depth to dense layer	0.48
1080E:					
Becket, very bouldery	85	Low		Moderate	
				Depth to dense layer	0.48
1081B:					
Skerry, very bouldery	80	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
1081C:					
Skerry, very bouldery	80	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
1091C:					
Lyman, very bouldery	35	Low		High	
				Depth to bedrock	1.00
Becket, very bouldery	30	Low		Moderate	
				Depth to dense layer	0.48

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
Tunbridge, very bouldery----------	20	Low		Moderate	
				Depth to bedrock	0.50
1091E:					
Lyman, very bouldery	35	Low		High	
				Depth to bedrock	1.00
Becket, very bouldery----------	30	Low		Moderate	
				Depth to dense layer	0.48
Tunbridge, very bouldery----------	20	Low		Moderate	
				Depth to bedrock	0.50
1118C:					
Adams---------------	55	Low		Low	
Colton--------------	30	Moderate		Low	
		Droughty	0.50		
1118D:					
Adams---------------	50	Low		Low	
Colton--------------	35	Moderate		Low	
		Droughty	0.50		
1170B:					
Henniker------------	75	Low		Moderate	
				Depth to dense layer	0.48
1170C:					
Henniker------------	80	Low		Moderate	
				Depth to dense layer	0.48
1170E:					
Henniker------------	85	Low		Moderate	
				Depth to dense layer	0.48
1171B:					
Metacomet-----------	80	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
1171C:					
Metacomet-----------	80	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
1172B:					
Pillsbury, somewhat poorly drained	75	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.48
1178A:					
Adirondack, very bouldery	80	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.87
1178B:					
Adirondack, very bouldery	75	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.87
1185A:					
Wonsqueak, undrained	85	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
1190C:					
Tunbridge, very bouldery	50	Low		Moderate	
				Depth to bedrock	0.50
Lyman, very bouldery	25	Low		High	
				Depth to bedrock	1.00
1190E:					
Tunbridge, very bouldery	50	Low		Moderate	
				Depth to bedrock	0.50
Lyman, very bouldery	30	Low		High	
				Depth to bedrock	1.00
1190F:					
Tunbridge, very bouldery	45	Low		Moderate	
				Depth to bedrock	0.50
Lyman, very bouldery	30	Low		High	
				Depth to bedrock	1.00
1193A:					
Wonsqueak	60	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
Humaquepts, frequently flooded	30	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
1291C:					
Becket, very bouldery	35	Low		Moderate	
				Depth to dense layer	0.48
Lyman, very bouldery	25	Low		High	
				Depth to bedrock	1.00
Tunbridge, very bouldery	20	Low		Moderate	
				Depth to bedrock	0.50
1291D:					
Becket, very bouldery	40	Low		Moderate	
				Depth to dense layer	0.48
Lyman, very bouldery	25	Low		High	
				Depth to bedrock	1.00
Tunbridge, very bouldery	20	Low		Moderate	
				Depth to bedrock	0.50
1292C:					
Becket, very bouldery	50	Low		Moderate	
				Depth to dense layer	0.48
Tunbridge, very bouldery	25	Low		Moderate	
				Depth to bedrock	0.50
1292E:					
Becket, very bouldery	50	Low		Moderate	
				Depth to dense layer	0.48
Tunbridge, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50
1292F:					
Becket, very bouldery	55	Low		Moderate	
				Depth to dense layer	0.48
Tunbridge, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Potential for seedling mortality: Value	Potential for windthrow: Rating class and limiting features	Potential for windthrow: Value
1293C:					
Skerry, very bouldery	55	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
Tunbridge, very bouldery	25	Low		Moderate	
				Depth to bedrock	0.50
1380C:					
Becket, very bouldery	45	Low		Moderate	
				Depth to dense layer	0.48
Skerry, very bouldery	40	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
1391C:					
Lyman, very bouldery	40	Low		High	
				Depth to bedrock	1.00
Tunbridge, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50
Rock outcrop	15	Not rated		Not rated	
1391D:					
Lyman, very bouldery	45	Low		High	
				Depth to bedrock	1.00
Tunbridge, very bouldery	30	Low		Moderate	
				Depth to bedrock	0.50
Rock outcrop	15	Not rated		Not rated	
1580B:					
Adirondack, very bouldery	50	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.87
Skerry, very bouldery	30	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Value	Potential for windthrow: Rating class and limiting features	Value
1591F:					
Lyman, very bouldery	45	Low		High	
				Depth to bedrock	1.00
Berkshire, very bouldery-----------	35	Low		Low	
1911C:					
Potsdam, very bouldery-----------	60	Low		Moderate	
				Depth to dense layer	0.48
Lyman, very bouldery	25	Low		High	
				Depth to bedrock	1.00
1911E:					
Potsdam, very bouldery-----------	60	Low		Moderate	
				Depth to dense layer	0.48
Lyman, very bouldery	25	Low		High	
				Depth to bedrock	1.00
1920B:					
Monadnock, very bouldery-----------	75	Low		Low	
1920C:					
Monadnock, very bouldery-----------	80	Low		Low	
1920E:					
Monadnock, very bouldery-----------	80	Low		Low	
1941A:					
Sabattis, very bouldery-----------	75	High		High	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding/ponding	1.00		
2170B:					
Henniker, very stony	75	Low		Moderate	
				Depth to dense layer	0.48
2170C:					
Henniker, very stony	80	Low		Moderate	
				Depth to dense layer	0.48
2170E:					
Henniker, very stony	75	Low		Moderate	
				Depth to dense layer	0.48

Table 10.—Seedling Mortality and Windthrow Hazard on Forestland—Continued

Map symbol and soil name	Pct. of map unit	Potential for seedling mortality: Rating class and limiting features	Potential for seedling mortality: Value	Potential for windthrow: Rating class and limiting features	Potential for windthrow: Value
2171B:					
Metacomet, very stony	80	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
2171C:					
Metacomet, very stony	80	Low		Moderate	
				Depth to dense layer	0.48
				Depth to saturated zone	0.20
2172B:					
Pillsbury, very stony	75	Low		High	
				Depth to saturated zone	1.00
				Depth to dense layer	0.48
DeB:					
Deerfield	75	Moderate		Moderate	
		Droughty	0.50	Depth to saturated zone	0.20
GP:					
Pits, sand and gravel	80	Not rated		Not rated	

Table 11.—Camp Areas, Picnic Areas and Playgrounds

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3A:							
Endoaquolls, frequently flooded	55	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
Hapludolls, frequently flooded	30	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Flooding	0.40	Flooding	1.00
4C:							
Udorthents, smoothed	75	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.81	Slow water movement	0.81	Slope	1.00
		Depth to saturated zone	0.07	Depth to saturated zone	0.03	Slow water movement	0.81
		Slope	0.01	Slope	0.01	Depth to saturated zone	0.07
5C:							
Udorthents, refuse substratum	70	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Slope	0.63	Slope	0.63	Slope	1.00
6A:							
Saprists, frequently ponded	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Organic matter content	1.00	Organic matter content	1.00	Organic matter content	1.00
Aquents, frequently ponded	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
7B:							
Endoaquents, smoothed	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00				

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
10A:							
Pleasant Lake	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
Burnt Vly	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
11B:							
Hinckley	40	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.50	Too sandy	0.50	Slope	1.00
		Gravel	0.01	Gravel	0.01	Gravel	1.00
						Too sandy	0.50
Windsor	35	Not limited		Not limited		Somewhat limited	
						Slope	0.88
11C:							
Hinckley	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Too sandy	0.50	Too sandy	0.50	Gravel	1.00
		Gravel	0.01	Gravel	0.01	Too sandy	0.50
Windsor	35	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
11D:							
Hinckley	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too sandy	0.50	Too sandy	0.50	Gravel	1.00
		Gravel	0.01	Gravel	0.01	Too sandy	0.50
Windsor	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
11E:							
Hinckley	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too sandy	0.50	Too sandy	0.50	Gravel	1.00
		Gravel	0.01	Gravel	0.01	Too sandy	0.50
Windsor	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
13F:							
Lansing	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Mohawk	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
16E:							
Broadalbin	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to pan	0.97	Depth to pan	0.97	Depth to pan	0.97

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
17D:							
Hollis	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
Rock Outcrop	15	Not rated		Not rated		Not rated	
18C:							
Chatfield	50	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
						Depth to bedrock	0.84
Hollis	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Slope	0.01	Slope	0.01	Depth to bedrock	1.00
18D:							
Chatfield	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Depth to bedrock	0.84
Hollis	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
21B:							
Galway	75	Not limited		Not limited		Somewhat limited	
						Slope	0.88
						Depth to bedrock	0.71
21C:							
Galway	75	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
						Depth to bedrock	0.71
22B:							
Georgia	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
						Slope	0.88
24B:							
Farmington	75	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
						Slope	0.50
24C:							
Farmington	75	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to bedrock	1.00
25A:							
Wonsqueak, ponded	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
Colton	25	Not limited		Not limited		Somewhat limited	
						Slope	0.88

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
Rumney	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00			Flooding	0.60
25D:							
Farmington, very rocky	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
32B:							
Mohawk	75	Not limited		Not limited		Somewhat limited	
						Slope	0.88
32C:							
Mohawk	75	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
32D:							
Mohawk	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
33B:							
Angola	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
						Depth to bedrock	0.29
						Slope	0.12
34A:							
Manheim	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.26	Slow water movement	0.26	Slow water movement	0.26
34B:							
Manheim	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.26	Slow water movement	0.26	Slope	0.88
						Slow water movement	0.26
42B:							
Lansing	75	Not limited		Not limited		Somewhat limited	
						Slope	0.88
42C:							
Lansing	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
42D:							
Lansing	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
44A:							
Appleton	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.88	Slow water movement	0.88	Slow water movement	0.88
44B:							
Appleton	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.88	Slow water movement	0.88	Slow water movement	0.88
						Slope	0.88
47A:							
Ilion	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
47B:							
Ilion	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
						Slope	0.50
49A:							
Fonda	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
72B:							
Broadalbin, well drained	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to pan	0.97	Depth to pan	0.97	Depth to pan	0.97
						Slope	0.88
Broadalbin, moderately well drained	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to pan	0.97	Depth to pan	0.97	Depth to pan	0.97
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Depth to saturated zone	0.88
72C:							
Broadalbin	75	Somewhat limited		Somewhat limited		Very limited	
		Depth to pan	0.97	Depth to pan	0.97	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to pan	0.97
72D:							
Broadalbin	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to pan	0.97	Depth to pan	0.97	Depth to pan	0.97

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74A:							
Mosherville	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to pan	1.00	Depth to pan	1.00	Depth to pan	1.00
74B:							
Mosherville	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to pan	1.00	Depth to pan	1.00	Depth to pan	1.00
						Slope	0.88
77A:							
Sun	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to pan	0.01	Depth to pan	0.01	Depth to pan	0.01
81B:							
Charlton	80	Not limited		Not limited		Very limited	
						Slope	1.00
						Gravel	0.14
81C:							
Charlton	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
						Gravel	0.14
81D:							
Charlton	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Gravel	0.14
89A:							
Whitman	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Depth to pan	1.00
		Depth to pan	1.00	Depth to pan	1.00	Ponding	1.00
90B:							
Palatine	75	Not limited		Not limited		Very limited	
						Slope	1.00
						Gravel	0.78
						Depth to bedrock	0.01
90C:							
Palatine	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
						Gravel	0.78
						Depth to bedrock	0.01
90D:							
Palatine	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
						Gravel	0.78
						Depth to bedrock	0.01

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
94B:							
Paxton	75	Somewhat limited		Somewhat limited		Very limited	
		Depth to pan	0.35	Depth to pan	0.35	Slope	1.00
						Depth to pan	0.35
94C:							
Paxton	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Depth to pan	0.35	Depth to pan	0.35	Depth to pan	0.35
94D:							
Paxton	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to pan	0.35	Depth to pan	0.35	Depth to pan	0.35
95B:							
Woodbridge	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.81	Depth to pan	0.79	Depth to saturated zone	0.81
		Depth to pan	0.79	Depth to saturated zone	0.48	Depth to pan	0.80
						Slope	0.50
96B:							
Ridgebury	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to pan	0.99	Depth to pan	0.99	Depth to pan	0.99
						Slope	0.50
99A:							
Timakwa, undrained	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
109A:							
Catden, undrained	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
						Large stones	0.32
112A:							
Scio	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Depth to saturated zone	0.88
Urban Land	40	Not rated		Not rated		Not rated	
114B:							
Windsor	60	Not limited		Not limited		Somewhat limited	
						Slope	0.88
Urban Land	30	Not rated		Not rated		Not rated	

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
114C:							
Windsor	60	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
Urban Land	30	Not rated		Not rated		Not rated	
114D:							
Windsor	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Urban Land	30	Not rated		Not rated		Not rated	
115B:							
Udipsamments, smoothed	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.50	Too sandy	0.50	Too sandy	0.50
						Gravel	0.22
116:							
Urban Land	90	Not rated		Not rated		Not rated	
117B:							
Broadalbin, moderately well drained	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to pan	0.97	Depth to pan	0.97	Depth to pan	0.97
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Depth to saturated zone	0.88
						Slope	0.88
Urban Land	30	Not rated		Not rated		Not rated	
117C:							
Broadalbin, well drained	45	Somewhat limited		Somewhat limited		Very limited	
		Depth to pan	0.97	Depth to pan	0.97	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to pan	0.97
Urban Land	30	Not rated		Not rated		Not rated	
130B:							
Hudson	75	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Depth to saturated zone	0.88
						Slope	0.50

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
130C:							
Hudson	80	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slope	1.00
		Depth to saturated zone	0.88	Slope	0.63	Slow water movement	1.00
		Slope	0.63	Depth to saturated zone	0.56	Depth to saturated zone	0.88
134A:							
Rhinebeck	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
134B:							
Rhinebeck	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
135A:							
Churchville	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
135B:							
Churchville	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
						Slope	0.50
137A:							
Madalin	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
151B:							
Unadilla	80	Not limited		Not limited		Somewhat limited	
						Slope	0.50
152A:							
Scio	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Depth to saturated zone	0.88
152B:							
Scio	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Depth to saturated zone	0.88
						Slope	0.50

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
154A:							
Tonawanda-----------	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.15	Slow water movement	0.15	Slow water movement	0.15
154B:							
Tonawanda-----------	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.15	Slow water movement	0.15	Slope	0.50
						Slow water movement	0.15
157A:							
Birdsall------------	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
160A:							
Agawam--------------	75	Not limited		Not limited		Not limited	
160B:							
Agawam--------------	75	Not limited		Not limited		Very limited	
						Slope	1.00
162B:							
Ninigret------------	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
						Slope	0.50
165A:							
Stafford------------	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too sandy	0.12	Too sandy	0.12	Too sandy	0.12
170B:							
Windsor-------------	75	Not limited		Not limited		Somewhat limited	
						Slope	0.50
170C:							
Windsor-------------	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
170D:							
Windsor-------------	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
179A:							
Scarboro------------	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
182A:							
Elmridge	75	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Depth to saturated zone	0.88
182B:							
Elmridge	75	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slope	1.00
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Slow water movement	1.00
						Depth to saturated zone	0.88
187A:							
Aeric Epiaquepts, somewhat poorly drained	50	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Slow water movement	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Depth to saturated zone	0.99	Slow water movement	1.00
Aeric Epiaquepts, poorly drained	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
189A:							
Cheektowaga	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
197A:							
Fredon, somewhat poorly drained	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
201B:							
Alton	80	Somewhat limited		Somewhat limited		Very limited	
		Gravel	0.01	Gravel	0.01	Gravel	1.00
						Slope	0.50
201C:							
Alton	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Gravel	0.01	Gravel	0.01	Gravel	1.00
201D:							
Alton	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Gravel	0.01	Gravel	0.01	Gravel	1.00

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
210A:							
Merrimac	75	Not limited		Not limited		Not limited	
210B:							
Merrimac	75	Not limited		Not limited		Somewhat limited	
						Slope	0.50
210C:							
Merrimac	75	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
210D:							
Merrimac	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
211A:							
Burnt Vly	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
Humaquepts	25	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
Pleasant Lake	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
212A:							
Hinckley	80	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.50	Too sandy	0.50	Gravel	1.00
		Gravel	0.01	Gravel	0.01	Too sandy	0.50
212B:							
Hinckley	80	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.50	Too sandy	0.50	Slope	1.00
		Gravel	0.01	Gravel	0.01	Gravel	1.00
						Too sandy	0.50
212C:							
Hinckley	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Too sandy	0.50	Too sandy	0.50	Gravel	1.00
		Gravel	0.01	Gravel	0.01	Too sandy	0.50
232A:							
Teel	75	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Depth to saturated zone	0.98			Flooding	0.60

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
244A:							
Darien	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.94	Slow water movement	0.94	Slow water movement	0.94
244B:							
Darien	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.94	Slow water movement	0.94	Slow water movement	0.94
						Slope	0.88
363A:							
Adams	85	Not limited		Not limited		Not limited	
363B:							
Adams	80	Not limited		Not limited		Very limited	
						Slope	1.00
363D:							
Adams	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
363F:							
Adams	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
365A:							
Naumburg	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Croghan	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Depth to saturated zone	0.88
368A:							
Searsport	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
Wonsqueak	25	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
Naumburg	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
375A:							
Colton	45	Not limited		Not limited		Not limited	
Adams	40	Not limited		Not limited		Not limited	

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
375C:							
Colton	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
Adams	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
375D:							
Colton	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Adams	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
650C:							
Monadnock, very bouldery	35	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.16	Slope	0.16	Stones or boulders on surface	0.53
Adams	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
Colton	20	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
650D:							
Monadnock, very bouldery	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
Adams	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Colton	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
651C:							
Monadnock, very bouldery	40	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.53
Tunbridge, rolling, very bouldery	25	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to bedrock	0.97
						Stones or boulders on surface	0.53

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Sabattis, very bouldery-----------	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Large stones	0.01
651D:							
Monadnock, very bouldery-----------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
Tunbridge, hilly, very bouldery------	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
651F:							
Monadnock, very bouldery-----------	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
Tunbridge, very bouldery-----------	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
653C:							
Monadnock, very bouldery-----------	80	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.53

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
653D:							
Monadnock, very bouldery-----------	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
708B:							
Adirondack, very bouldery-----------	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to pan	0.79	Depth to pan	0.79	Depth to pan	0.80
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Slope	0.50
Sabattis, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Large stones	0.01
Tughill, very bouldery-----------	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Large stones	0.32
						Gravel	0.07
711C:							
Adirondack, very bouldery-----------	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to pan	0.79	Depth to pan	0.79	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.80
		Slope	0.01	Slope	0.01	Stones or boulders on surface	0.53

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
Tunbridge, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
Burnt Vly	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
721C:							
Becket, very bouldery	40	Somewhat limited		Somewhat limited		Very limited	
		Depth to pan	0.79	Depth to pan	0.79	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.80
		Depth to saturated zone	0.20	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Depth to saturated zone	0.10	Depth to saturated zone	0.20
Tunbridge, very bouldery	25	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
Skerry, very bouldery	20	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Slope	1.00
		Depth to pan	0.54	Depth to pan	0.54	Depth to saturated zone	0.98
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.54
						Stones or boulders on surface	0.53
721D:							
Becket, very bouldery	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to pan	0.79	Depth to pan	0.79	Depth to pan	0.80
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
		Depth to saturated zone	0.20	Depth to saturated zone	0.10	Depth to saturated zone	0.20

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
Tunbridge, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
721F:							
Becket, very bouldery-----------	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to pan	0.79	Depth to pan	0.79	Depth to pan	0.80
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
		Depth to saturated zone	0.20	Depth to saturated zone	0.10	Depth to saturated zone	0.20
Tunbridge, very bouldery-----------	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
723C:							
Becket, very bouldery-----------	80	Somewhat limited		Somewhat limited		Very limited	
		Depth to pan	0.79	Depth to pan	0.79	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.80
		Depth to saturated zone	0.20	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Depth to saturated zone	0.10	Depth to saturated zone	0.20
723D:							
Becket, very bouldery-----------	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to pan	0.79	Depth to pan	0.79	Depth to pan	0.80
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
		Depth to saturated zone	0.20	Depth to saturated zone	0.10	Depth to saturated zone	0.20

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
725B:							
Skerry, very bouldery	55	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Slope	1.00
		Depth to pan	0.54	Depth to pan	0.54	Depth to saturated zone	0.98
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.54
						Stones or boulders on surface	0.53
Becket, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Depth to pan	0.79	Depth to pan	0.79	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.80
		Depth to saturated zone	0.20	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Depth to saturated zone	0.10	Depth to saturated zone	0.20
727B:							
Skerry, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Slope	1.00
		Depth to pan	0.54	Depth to pan	0.54	Depth to saturated zone	0.98
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.54
						Stones or boulders on surface	0.53
Adirondack, very bouldery	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to pan	0.79	Depth to pan	0.79	Depth to pan	0.80
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Slope	0.12
741C:							
Potsdam, very bouldery	50	Somewhat limited		Somewhat limited		Very limited	
		Depth to pan	0.64	Depth to pan	0.64	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.65
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.53

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
Tunbridge, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
741D:							
Potsdam, very bouldery	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to pan	0.64	Depth to pan	0.64	Depth to pan	0.65
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
Tunbridge, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
743C:							
Potsdam, very bouldery	80	Somewhat limited		Somewhat limited		Very limited	
		Depth to pan	0.64	Depth to pan	0.64	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.65
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.53
743D:							
Potsdam, very bouldery	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to pan	0.64	Depth to pan	0.64	Depth to pan	0.65
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
745C:							
Crary, very bouldery	40	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to pan	0.84	Slope	1.00
		Depth to pan	0.84	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.84
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.53

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
Potsdam, very bouldery	35	Somewhat limited		Somewhat limited		Very limited	
		Depth to pan	0.64	Depth to pan	0.64	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.65
		Slope	0.16	Slope	0.16	Stones or boulders on surface	0.53
747B:							
Crary, very bouldery	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to pan	0.84	Depth to saturated zone	0.98
		Depth to pan	0.84	Depth to saturated zone	0.75	Slope	0.88
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.84
						Stones or boulders on surface	0.53
Adirondack, very bouldery	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to pan	0.79	Depth to pan	0.79	Depth to pan	0.80
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Slope	0.12
831C:							
Tunbridge, very bouldery	50	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.53

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
831D:							
Tunbridge, very bouldery	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
831F:							
Tunbridge, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
Lyman, very bouldery	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
833C:							
Tunbridge, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
Adirondack, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to pan	0.79	Depth to pan	0.79	Depth to pan	0.80
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Slope	0.50

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Lyman, very bouldery	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.53
836C:							
Tunbridge, very bouldery-----------	45	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
Wonsqueak-----------	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
Knob Lock, very bouldery-----------	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.53
851C:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.53
Knob Lock, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.53

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
851D:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
Knob Lock, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
851F:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
Knob Lock, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
931D:							
Mundalite, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to pan	0.71	Depth to pan	0.71	Depth to pan	0.71
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
Rawsonville, very bouldery	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.71
						Stones or boulders on surface	0.53
931F:							
Mundalite, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to pan	0.71	Depth to pan	0.71	Depth to pan	0.71
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
Rawsonville, very bouldery	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.71
						Stones or boulders on surface	0.53
941C:							
Rawsonville, very bouldery	50	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to bedrock	0.71
						Stones or boulders on surface	0.53
Hogback, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.16	Slope	0.16	Stones or boulders on surface	0.53
941D:							
Rawsonville, very bouldery	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.71
						Stones or boulders on surface	0.53
Hogback, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
941F:							
Rawsonville, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.71
						Stones or boulders on surface	0.53

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
Hogback, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
1018B:							
Colton	75	Not limited		Not limited		Somewhat limited	
						Slope	0.50
1018C:							
Colton	75	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
1018D:							
Colton	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
1022A:							
Croghan	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Depth to saturated zone	0.88
1023A:							
Naumburg	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
1024A:							
Searsport	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
1025A:							
Adams	85	Not limited		Not limited		Not limited	
1025B:							
Adams	85	Not limited		Not limited		Very limited	
						Slope	1.00
1025C:							
Adams	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
1025E:							
Adams	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
1025F:							
Adams	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
1027B:							
Allagash	75	Not limited		Not limited		Somewhat limited	
						Slope	0.88

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1027C:							
Allagash	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
1027E:							
Allagash	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
1070B:							
Berkshire, very bouldery	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	0.88
						Stones or boulders on surface	0.53
1070C:							
Berkshire, very bouldery	70	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.16	Slope	0.16	Stones or boulders on surface	0.53
1070E:							
Berkshire, very bouldery	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
1075B:							
Potsdam, very bouldery	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to pan	0.64	Depth to pan	0.64	Slope	0.88
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.65
						Stones or boulders on surface	0.53
1075C:							
Potsdam, very bouldery	80	Somewhat limited		Somewhat limited		Very limited	
		Depth to pan	0.64	Depth to pan	0.64	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.65
		Slope	0.16	Slope	0.16	Stones or boulders on surface	0.53

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
1078B:							
Crary, very bouldery	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to pan	0.84	Depth to saturated zone	0.98
		Depth to pan	0.84	Depth to saturated zone	0.75	Slope	0.88
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.84
						Stones or boulders on surface	0.53
1080B:							
Becket, very bouldery-----------	80	Somewhat limited		Somewhat limited		Very limited	
		Depth to pan	0.79	Depth to pan	0.79	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.80
		Depth to saturated zone	0.20	Depth to saturated zone	0.10	Stones or boulders on surface	0.53
						Depth to saturated zone	0.20
1080C:							
Becket, very bouldery-----------	80	Somewhat limited		Somewhat limited		Very limited	
		Depth to pan	0.79	Depth to pan	0.79	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.80
		Depth to saturated zone	0.20	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Depth to saturated zone	0.10	Depth to saturated zone	0.20
1080E:							
Becket, very bouldery-----------	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to pan	0.79	Depth to pan	0.79	Depth to pan	0.80
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
		Depth to saturated zone	0.20	Depth to saturated zone	0.10	Depth to saturated zone	0.20
1081B:							
Skerry, very bouldery-----------	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Depth to pan	0.54	Depth to pan	0.54	Slope	0.88
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.54
						Stones or boulders on surface	0.53

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
1081C:							
Skerry, very bouldery	80	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to saturated zone	0.98
		Depth to pan	0.54	Depth to pan	0.54	Depth to pan	0.54
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
1091C:							
Lyman, very bouldery	35	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.53
Becket, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Depth to pan	0.79	Depth to pan	0.79	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.80
		Depth to saturated zone	0.20	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Depth to saturated zone	0.10	Depth to saturated zone	0.20
Tunbridge, very bouldery	20	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
1091E:							
Lyman, very bouldery	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
Becket, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to pan	0.79	Depth to pan	0.79	Depth to pan	0.80
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
		Depth to saturated zone	0.20	Depth to saturated zone	0.10	Depth to saturated zone	0.20

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
Tunbridge, very bouldery	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
1118C:							
Adams	55	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
Colton	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
1118D:							
Adams	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Colton	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
1170B:							
Henniker	75	Somewhat limited		Somewhat limited		Very limited	
		Depth to pan	0.35	Depth to pan	0.35	Slope	1.00
						Depth to pan	0.35
1170C:							
Henniker	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Depth to pan	0.35	Depth to pan	0.35	Depth to pan	0.35
1170E:							
Henniker	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to pan	0.35	Depth to pan	0.35	Depth to pan	0.35
1171B:							
Metacomet	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Depth to pan	0.35	Depth to pan	0.35	Slope	0.88
		Slow water movement	0.35	Slow water movement	0.35	Depth to pan	0.35
						Slow water movement	0.35
1171C:							
Metacomet	80	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Slope	1.00
		Depth to pan	0.35	Depth to pan	0.35	Depth to saturated zone	0.98
		Slow water movement	0.35	Slow water movement	0.35	Depth to pan	0.35
		Slope	0.16	Slope	0.16	Slow water movement	0.35

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1172B:							
Pillsbury, somewhat poorly drained-----	75	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.83	Depth to saturated zone	1.00
		Depth to pan	0.20	Depth to pan	0.20	Slope	0.50
						Depth to pan	0.20
						Large stones	0.01
1178A:							
Adirondack, very bouldery-----------	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to pan	0.79	Depth to pan	0.79	Depth to pan	0.80
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
1178B:							
Adirondack, very bouldery-----------	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to pan	0.79	Depth to pan	0.79	Depth to pan	0.80
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Slope	0.50
1185A:							
Wonsqueak, undrained	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
1190C:							
Tunbridge, very bouldery-----------	50	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.53

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
1190E:							
Tunbridge, very bouldery	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
1190F:							
Tunbridge, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
1193A:							
Wonsqueak	60	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
Humaquepts, frequently flooded	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
1291C:							
Becket, very bouldery	35	Somewhat limited		Somewhat limited		Very limited	
		Depth to pan	0.79	Depth to pan	0.79	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.80
		Depth to saturated zone	0.20	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Depth to saturated zone	0.10	Depth to saturated zone	0.20

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.53
Tunbridge, very bouldery-----------	20	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
1291D:							
Becket, very bouldery-----------	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to pan	0.79	Depth to pan	0.79	Depth to pan	0.80
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
		Depth to saturated zone	0.20	Depth to saturated zone	0.10	Depth to saturated zone	0.20
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
Tunbridge, very bouldery-----------	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
1292C:							
Becket, very bouldery-----------	50	Somewhat limited		Somewhat limited		Very limited	
		Depth to pan	0.79	Depth to pan	0.79	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.80
		Depth to saturated zone	0.20	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Depth to saturated zone	0.10	Depth to saturated zone	0.20

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
Tunbridge, very bouldery	25	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
1292E:							
Becket, very bouldery	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to pan	0.79	Depth to pan	0.79	Depth to pan	0.80
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
		Depth to saturated zone	0.20	Depth to saturated zone	0.10	Depth to saturated zone	0.20
Tunbridge, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
1292F:							
Becket, very bouldery	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to pan	0.79	Depth to pan	0.79	Depth to pan	0.80
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
		Depth to saturated zone	0.20	Depth to saturated zone	0.10	Depth to saturated zone	0.20
Tunbridge, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1293C:							
Skerry, very bouldery	55	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Slope	1.00
		Depth to pan	0.54	Depth to pan	0.54	Depth to saturated zone	0.98
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.54
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.53
Tunbridge, very bouldery	25	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
1380C:							
Becket, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Depth to pan	0.79	Depth to pan	0.79	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to pan	0.80
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
		Depth to saturated zone	0.20	Depth to saturated zone	0.10	Depth to saturated zone	0.20
Skerry, very bouldery	40	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Slope	1.00
		Depth to pan	0.54	Depth to pan	0.54	Depth to saturated zone	0.98
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.54
		Slope	0.01	Slope	0.01	Stones or boulders on surface	0.53
1391C:							
Lyman, very bouldery	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.53

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
Tunbridge, very bouldery-----------	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
Rock Outcrop--------	15	Not rated		Not rated		Not rated	
1391D:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
Tunbridge, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
Rock Outcrop--------	15	Not rated		Not rated		Not rated	
1580B:							
Adirondack, very bouldery-----------	50	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to pan	0.79	Depth to pan	0.79	Depth to pan	0.80
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Slope	0.50
Skerry, very bouldery-----------	30	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Slope	1.00
		Depth to pan	0.54	Depth to pan	0.54	Depth to saturated zone	0.98
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.54
						Stones or boulders on surface	0.53

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
1591F:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
Berkshire, very bouldery	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
1911C:							
Potsdam, very bouldery	60	Somewhat limited		Somewhat limited		Very limited	
		Depth to pan	0.64	Depth to pan	0.64	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to pan	0.65
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
		Slope	0.16	Slope	0.16	Stones or boulders on surface	0.53
1911E:							
Potsdam, very bouldery	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to pan	0.64	Depth to pan	0.64	Depth to pan	0.65
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
1920B:							
Monadnock, very bouldery	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	0.88
						Stones or boulders on surface	0.53

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
1920C:							
Monadnock, very bouldery	80	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Slope	0.16	Slope	0.16	Stones or boulders on surface	0.53
1920E:							
Monadnock, very bouldery	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
1941A:							
Sabattis, very bouldery	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Large stones	0.01
2170B:							
Henniker, very stony	75	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	1.00
		Depth to pan	0.35	Depth to pan	0.35	Stones or boulders on surface	0.53
						Depth to pan	0.35
2170C:							
Henniker, very stony	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
		Depth to pan	0.35	Depth to pan	0.35	Depth to pan	0.35
2170E:							
Henniker, very stony	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
		Depth to pan	0.35	Depth to pan	0.35	Depth to pan	0.35

Table 11.—Camp Areas, Picnic Areas and Playgrounds—Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
2171B:							
Metacomet, very stony	80	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Slope	1.00
		Depth to pan	0.35	Depth to pan	0.35	Depth to saturated zone	0.98
		Slow water movement	0.35	Slow water movement	0.35	Depth to pan	0.35
		Stones or boulders on surface	0.19	Stones or boulders on surface	0.19	Slow water movement	0.35
						Stones or boulders on surface	0.19
2171C:							
Metacomet, very stony	80	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to saturated zone	0.98
		Depth to pan	0.35	Depth to pan	0.35	Depth to pan	0.35
		Slow water movement	0.35	Slow water movement	0.35	Slow water movement	0.35
		Stones or boulders on surface	0.19	Stones or boulders on surface	0.19	Stones or boulders on surface	0.19
2172B:							
Pillsbury, very stony	75	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.83	Depth to saturated zone	1.00
		Depth to pan	0.20	Depth to pan	0.20	Slope	0.50
		Stones or boulders on surface	0.19	Stones or boulders on surface	0.19	Depth to pan	0.20
						Stones or boulders on surface	0.19
						Large stones	0.08
DeB:							
Deerfield	75	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.44	Too sandy	0.44	Slope	1.00
		Depth to saturated zone	0.16	Depth to saturated zone	0.08	Too sandy	0.44
						Depth to saturated zone	0.16
GP:							
Pits, sand and gravel	80	Not rated		Not rated		Not rated	

Table 12.—Paths, Trails and Golf Fairways

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
3A:							
Endoaquolls, frequently flooded	55	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
Hapludolls, frequently flooded	30	Somewhat limited		Somewhat limited		Very limited	
		Flooding	0.40	Flooding	0.40	Flooding	1.00
4C:							
Udorthents, smoothed	75	Not limited		Not limited		Somewhat limited	
						Depth to saturated zone	0.03
						Slope	0.01
5C:							
Udorthents, refuse substratum	70	Not rated		Not rated		Not rated	
6A:							
Saprists, frequently ponded	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Organic matter content	1.00
		Organic matter content	1.00	Organic matter content	1.00	Depth to saturated zone	1.00
Aquents, frequently ponded	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
7B:							
Endoaquents, smoothed	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Droughty	0.03
10A:							
Pleasant Lake	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
Burnt Vly	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
11B:							
Hinckley	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.50	Too sandy	0.50	Droughty	0.98
						Gravel	0.01
Windsor	35	Not limited		Not limited		Somewhat limited	
						Droughty	0.37
11C:							
Hinckley	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.50	Too sandy	0.50	Droughty	0.98
						Slope	0.63
						Gravel	0.01
Windsor	35	Not limited		Not limited		Somewhat limited	
						Slope	0.63
						Droughty	0.37
11D:							
Hinckley	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Too sandy	0.50	Too steep	1.00
		Too sandy	0.50			Droughty	0.98
						Gravel	0.01
Windsor	40	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Droughty	0.37
11E:							
Hinckley	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Too sandy	0.50	Too steep	1.00
		Too sandy	0.50	Slope	0.22	Droughty	0.98
						Gravel	0.01
Windsor	40	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.22	Too steep	1.00
						Droughty	0.37
13F:							
Lansing	50	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.86	Too steep	1.00
Mohawk	30	Very limited		Not limited		Very limited	
		Slope	1.00			Too steep	1.00
16E:							
Broadalbin	75	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.22	Too steep	1.00
						Depth to pan	0.97
						Droughty	0.05
17D:							
Hollis	60	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Depth to bedrock	1.00
						Too steep	1.00
						Droughty	0.56

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
Rock Outcrop--------	15	Not rated		Not rated		Not rated	
18C:							
Chatfield-----------	50	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.84
						Slope	0.16
Hollis--------------	30	Not limited		Not limited		Very limited	
						Depth to bedrock	1.00
						Droughty	0.56
						Slope	0.01
18D:							
Chatfield-----------	50	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Depth to bedrock	0.84
Hollis--------------	30	Somewhat limited		Not limited		Very limited	
		Slope	0.92			Too steep	1.00
						Depth to bedrock	1.00
						Droughty	0.56
21B:							
Galway--------------	75	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.71
21C:							
Galway--------------	75	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.71
						Slope	0.16
22B:							
Georgia-------------	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
24B:							
Farmington----------	75	Not limited		Not limited		Very limited	
						Depth to bedrock	1.00
						Droughty	1.00
24C:							
Farmington----------	75	Not limited		Not limited		Very limited	
						Depth to bedrock	1.00
						Droughty	1.00
						Slope	0.16
25A:							
Wonsqueak, ponded---	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
Colton--------------	25	Not limited		Not limited		Somewhat limited	
						Droughty	0.97
Rumney--------------	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Flooding	0.60

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
25D:							
Farmington, very rocky	70	Somewhat limited		Not limited		Very limited	
		Slope	0.02			Depth to bedrock	1.00
						Droughty	1.00
						Too steep	1.00
32B:							
Mohawk	75	Not limited		Not limited		Not limited	
32C:							
Mohawk	75	Not limited		Not limited		Somewhat limited	
						Slope	0.63
32D:							
Mohawk	75	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
33B:							
Angola	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Depth to bedrock	0.29
34A:							
Manheim	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
34B:							
Manheim	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
42B:							
Lansing	75	Not limited		Not limited		Not limited	
42C:							
Lansing	80	Not limited		Not limited		Somewhat limited	
						Slope	0.63
42D:							
Lansing	80	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
44A:							
Appleton	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
44B:							
Appleton	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
47A:							
Ilion	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
47B:							
Ilion	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
49A:							
Fonda	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
72B:							
Broadalbin, well drained	50	Not limited		Not limited		Somewhat limited	
						Depth to pan	0.97
						Droughty	0.05
Broadalbin, moderately well drained	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Depth to pan	0.97
						Depth to saturated zone	0.56
						Droughty	0.05
72C:							
Broadalbin	75	Not limited		Not limited		Somewhat limited	
						Depth to pan	0.97
						Slope	0.63
						Droughty	0.05
72D:							
Broadalbin	75	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Depth to pan	0.97
						Droughty	0.05
74A:							
Mosherville	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to pan	1.00
						Depth to saturated zone	1.00
						Droughty	0.97
74B:							
Mosherville	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to pan	1.00
						Depth to saturated zone	1.00
						Droughty	0.97
77A:							
Sun	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Depth to pan	0.01

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
81B:							
Charlton	80	Not limited		Not limited		Not limited	
81C:							
Charlton	80	Not limited		Not limited		Somewhat limited	
						Slope	0.63
81D:							
Charlton	80	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
89A:							
Whitman	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to pan	1.00
						Depth to saturated zone	1.00
						Droughty	0.22
90B:							
Palatine	75	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.01
90C:							
Palatine	80	Not limited		Not limited		Somewhat limited	
						Slope	0.63
						Depth to bedrock	0.01
90D:							
Palatine	85	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Depth to bedrock	0.01
94B:							
Paxton	75	Not limited		Not limited		Somewhat limited	
						Depth to pan	0.35
94C:							
Paxton	80	Not limited		Not limited		Somewhat limited	
						Slope	0.63
						Depth to pan	0.35
94D:							
Paxton	85	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Depth to pan	0.35
95B:							
Woodbridge	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.11	Depth to saturated zone	0.11	Depth to pan	0.79
						Depth to saturated zone	0.48
						Droughty	0.01
96B:							
Ridgebury	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Depth to pan	0.99
						Droughty	0.35

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
99A:							
Timakwa, undrained--	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
109A:							
Catden, undrained---	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
						Large stones	0.32
112A:							
Scio----------------	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Depth to saturated zone	0.56
Urban Land----------	40	Not rated		Not rated		Not rated	
114B:							
Windsor-------------	60	Not limited		Not limited		Somewhat limited	
						Droughty	0.37
Urban Land----------	30	Not rated		Not rated		Not rated	
114C:							
Windsor-------------	60	Not limited		Not limited		Somewhat limited	
						Droughty	0.37
						Slope	0.16
Urban Land----------	30	Not rated		Not rated		Not rated	
114D:							
Windsor-------------	60	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Droughty	0.37
Urban Land----------	30	Not rated		Not rated		Not rated	
115B:							
Udipsamments, smoothed-----------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.50	Too sandy	0.50	Droughty	0.56
116:							
Urban Land----------	90	Not rated		Not rated		Not rated	
117B:							
Broadalbin, moderately well drained-----------	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Depth to pan	0.97
						Depth to saturated zone	0.56
						Droughty	0.05

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
Urban Land	30	Not rated		Not rated		Not rated	
117C:							
Broadalbin, well drained	45	Not limited		Not limited		Somewhat limited	
						Depth to pan	0.97
						Slope	0.63
						Droughty	0.05
Urban Land	30	Not rated		Not rated		Not rated	
130B:							
Hudson	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Depth to saturated zone	0.56
130C:							
Hudson	80	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Slope	0.63
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Depth to saturated zone	0.56
134A:							
Rhinebeck	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
134B:							
Rhinebeck	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
135A:							
Churchville	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
135B:							
Churchville	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
137A:							
Madalin	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
151B:							
Unadilla	80	Not limited		Not limited		Not limited	
152A:							
Scio	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Depth to saturated zone	0.56
152B:							
Scio	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Depth to saturated zone	0.56

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
154A:							
Tonawanda	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
154B:							
Tonawanda	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
157A:							
Birdsall	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
160A:							
Agawam	75	Not limited		Not limited		Not limited	
160B:							
Agawam	75	Not limited		Not limited		Not limited	
162B:							
Ninigret	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
165A:							
Stafford	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too sandy	0.12	Too sandy	0.12	Droughty	0.72
170B:							
Windsor	75	Not limited		Not limited		Somewhat limited	
						Droughty	0.37
170C:							
Windsor	80	Not limited		Not limited		Somewhat limited	
						Slope	0.63
						Droughty	0.37
170D:							
Windsor	80	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Droughty	0.37
179A:							
Scarboro	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
182A:							
Elmridge	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Depth to saturated zone	0.56

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
182B:							
Elmridge	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Depth to saturated zone	0.56
187A:							
Aeric Epiaquepts, somewhat poorly drained	50	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.98	Depth to saturated zone	0.99
Aeric Epiaquepts, poorly drained	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
189A:							
Cheektowaga	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
197A:							
Fredon, somewhat poorly drained	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
201B:							
Alton	80	Not limited		Not limited		Somewhat limited	
						Droughty	0.02
						Gravel	0.01
201C:							
Alton	80	Not limited		Not limited		Somewhat limited	
						Slope	0.63
						Droughty	0.02
						Gravel	0.01
201D:							
Alton	80	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Droughty	0.02
						Gravel	0.01
210A:							
Merrimac	75	Not limited		Not limited		Somewhat limited	
						Droughty	0.02
210B:							
Merrimac	75	Not limited		Not limited		Somewhat limited	
						Droughty	0.02
210C:							
Merrimac	75	Not limited		Not limited		Somewhat limited	
						Slope	0.63
						Droughty	0.02

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
210D:							
Merrimac	75	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Droughty	0.02
211A:							
Burnt Vly	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
Humaquepts	25	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
Pleasant Lake	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
212A:							
Hinckley	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.50	Too sandy	0.50	Droughty	0.98
						Gravel	0.01
212B:							
Hinckley	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.50	Too sandy	0.50	Droughty	0.98
						Gravel	0.01
212C:							
Hinckley	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.50	Too sandy	0.50	Droughty	0.98
						Slope	0.63
						Gravel	0.01
232A:							
Teel	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
						Flooding	0.60
244A:							
Darien	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
244B:							
Darien	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
363A:							
Adams	85	Not limited		Not limited		Somewhat limited	
						Droughty	0.09

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
363B:							
Adams	80	Not limited		Not limited		Somewhat limited	
						Droughty	0.09
363D:							
Adams	80	Somewhat limited		Not limited		Very limited	
		Slope	0.92			Too steep	1.00
						Droughty	0.09
363F:							
Adams	75	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
						Droughty	0.09
365A:							
Naumburg	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Droughty	0.29
Croghan	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Depth to saturated zone	0.56
						Droughty	0.30
368A:							
Searsport	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
Wonsqueak	25	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
Naumburg	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Droughty	0.29
375A:							
Colton	45	Not limited		Not limited		Somewhat limited	
						Droughty	0.97
Adams	40	Not limited		Not limited		Somewhat limited	
						Droughty	0.09
375C:							
Colton	45	Not limited		Not limited		Somewhat limited	
						Droughty	0.97
						Slope	0.63
Adams	40	Not limited		Not limited		Somewhat limited	
						Slope	0.16
						Droughty	0.09

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
375D:							
Colton	45	Somewhat limited		Not limited		Very limited	
		Slope	0.92			Too steep	1.00
						Droughty	0.97
Adams	35	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Droughty	0.09
650C:							
Monadnock, very bouldery	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Slope	0.16
Adams	30	Not limited		Not limited		Somewhat limited	
						Slope	0.16
						Droughty	0.09
Colton	20	Not limited		Not limited		Somewhat limited	
						Droughty	0.97
						Slope	0.16
650D:							
Monadnock, very bouldery	40	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Too steep	1.00
		Slope	0.50			Stones or boulders on surface	0.53
Adams	30	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Droughty	0.09
Colton	20	Somewhat limited		Not limited		Very limited	
		Slope	0.92			Too steep	1.00
						Droughty	0.97
651C:							
Monadnock, very bouldery	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Slope	0.04
Tunbridge, rolling, very bouldery	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Slope	0.16
						Droughty	0.02

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
Sabattis, very bouldery-----------	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Large stones	0.01
651D:							
Monadnock, very bouldery-----------	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.92	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53			Stones or boulders on surface	0.53
Tunbridge, hilly, very bouldery------	35	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.92	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53			Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Droughty	0.02
651F:							
Monadnock, very bouldery-----------	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
Tunbridge, very bouldery-----------	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Droughty	0.02
653C:							
Monadnock, very bouldery-----------	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Slope	0.04

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
653D:							
Monadnock, very bouldery	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.92	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53			Stones or boulders on surface	0.53
708B:							
Adirondack, very bouldery	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.79
						Stones or boulders on surface	0.53
Sabattis, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Large stones	0.01
Tughill, very bouldery	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Large stones	0.32
711C:							
Adirondack, very bouldery	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.79
						Stones or boulders on surface	0.53
						Slope	0.01

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
Tunbridge, very bouldery	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Slope	0.16
						Droughty	0.02
Burnt Vly	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
721C:							
Becket, very bouldery	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.79
						Stones or boulders on surface	0.53
						Slope	0.16
						Depth to saturated zone	0.10
Tunbridge, very bouldery	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Slope	0.16
						Droughty	0.02
Skerry, very bouldery	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to saturated zone	0.75
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to pan	0.54
						Stones or boulders on surface	0.53

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
721D:							
Becket, very bouldery-----------	50	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Too steep	1.00
		Slope	0.50			Depth to pan	0.79
						Stones or boulders on surface	0.53
						Depth to saturated zone	0.10
Tunbridge, very bouldery-----------	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Too steep	1.00
		Slope	0.50			Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Droughty	0.02
721F:							
Becket, very bouldery-----------	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.79
						Stones or boulders on surface	0.53
						Depth to saturated zone	0.10
Tunbridge, very bouldery-----------	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Droughty	0.02
723C:							
Becket, very bouldery-----------	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.79
						Stones or boulders on surface	0.53
						Slope	0.16
						Depth to saturated zone	0.10

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
723D:							
Becket, very bouldery	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.92	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53			Depth to pan	0.79
						Stones or boulders on surface	0.53
						Depth to saturated zone	0.10
725B:							
Skerry, very bouldery	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to saturated zone	0.75
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to pan	0.54
						Stones or boulders on surface	0.53
Becket, very bouldery	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.79
						Stones or boulders on surface	0.53
						Slope	0.16
						Depth to saturated zone	0.10
727B:							
Skerry, very bouldery	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to saturated zone	0.75
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to pan	0.54
						Stones or boulders on surface	0.53
Adirondack, very bouldery	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.79
						Stones or boulders on surface	0.53

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
741C:							
Potsdam, very bouldery	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.64
						Stones or boulders on surface	0.53
						Slope	0.04
Tunbridge, very bouldery	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Slope	0.04
						Droughty	0.02
741D:							
Potsdam, very bouldery	50	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.92	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53			Depth to pan	0.64
						Stones or boulders on surface	0.53
Tunbridge, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Too steep	1.00
		Slope	0.50			Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Droughty	0.02
743C:							
Potsdam, very bouldery	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.64
						Stones or boulders on surface	0.53
						Slope	0.04

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
743D:							
Potsdam, very bouldery-----------	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.92	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53			Depth to pan	0.64
						Stones or boulders on surface	0.53
745C:							
Crary, very bouldery	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.84
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
						Stones or boulders on surface	0.53
						Slope	0.04
Potsdam, very bouldery-----------	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.64
						Stones or boulders on surface	0.53
						Slope	0.16
747B:							
Crary, very bouldery	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.84
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
						Stones or boulders on surface	0.53
Adirondack, very bouldery-----------	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.79
						Stones or boulders on surface	0.53

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
831C:							
Tunbridge, very bouldery	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Slope	0.16
						Droughty	0.02
Lyman, very bouldery	25	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.46
						Slope	0.04
831D:							
Tunbridge, very bouldery	50	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Too steep	1.00
		Slope	0.50			Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Droughty	0.02
Lyman, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Too steep	1.00
		Slope	0.50			Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.46
831F:							
Tunbridge, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Droughty	0.02

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
Lyman, very bouldery	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.46
833C:							
Tunbridge, very bouldery	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Slope	0.16
						Droughty	0.02
Adirondack, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.79
						Stones or boulders on surface	0.53
Lyman, very bouldery	15	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.46
						Slope	0.04
836C:							
Tunbridge, very bouldery	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Slope	0.16
						Droughty	0.02
Wonsqueak	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
Knob Lock, very bouldery-----------	15	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.08
						Slope	0.04
851C:							
Lyman, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.46
						Slope	0.04
Knob Lock, very bouldery-----------	30	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.08
						Slope	0.04
851D:							
Lyman, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.92	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53			Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.46
Knob Lock, very bouldery-----------	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.92	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53			Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.08

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
851F:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.46
Knob Lock, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.08
931D:							
Mundalite, very bouldery-----------	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.92	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53			Depth to pan	0.71
						Stones or boulders on surface	0.53
Rawsonville, very bouldery-----------	35	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.92	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53			Depth to bedrock	0.71
						Stones or boulders on surface	0.53
931F:							
Mundalite, very bouldery-----------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.71
						Stones or boulders on surface	0.53

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
Rawsonville, very bouldery-----------	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.71
						Stones or boulders on surface	0.53
941C:							
Rawsonville, very bouldery-----------	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.71
						Stones or boulders on surface	0.53
						Slope	0.16
Hogback, very bouldery-----------	25	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Slope	0.16
						Droughty	0.01
941D:							
Rawsonville, very bouldery-----------	50	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.92	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53			Depth to bedrock	0.71
						Stones or boulders on surface	0.53
Hogback, very bouldery-----------	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.92	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53			Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.01

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
941F:							
Rawsonville, very bouldery-----------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.71
						Stones or boulders on surface	0.53
Hogback, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.01
1018B:							
Colton--------------	75	Not limited		Not limited		Somewhat limited	
						Droughty	0.97
1018C:							
Colton--------------	75	Not limited		Not limited		Somewhat limited	
						Droughty	0.97
						Slope	0.16
1018D:							
Colton--------------	80	Somewhat limited		Not limited		Very limited	
		Slope	0.92			Too steep	1.00
						Droughty	0.97
1022A:							
Croghan-------------	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Depth to saturated zone	0.56
						Droughty	0.30
1023A:							
Naumburg------------	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Droughty	0.29
1024A:							
Searsport-----------	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
1025A:							
Adams---------------	85	Not limited		Not limited		Somewhat limited	
						Droughty	0.09
1025B:							
Adams---------------	85	Not limited		Not limited		Somewhat limited	
						Droughty	0.09

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
1025C:							
Adams	85	Not limited		Not limited		Somewhat limited	
						Slope	0.16
						Droughty	0.09
1025E:							
Adams	80	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.22	Too steep	1.00
						Droughty	0.09
1025F:							
Adams	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
						Droughty	0.09
1027B:							
Allagash	75	Not limited		Not limited		Not limited	
1027C:							
Allagash	80	Not limited		Not limited		Somewhat limited	
						Slope	0.16
1027E:							
Allagash	80	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.08	Too steep	1.00
1070B:							
Berkshire, very bouldery	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
1070C:							
Berkshire, very bouldery	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Slope	0.16
1070E:							
Berkshire, very bouldery	70	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53			Stones or boulders on surface	0.53
1075B:							
Potsdam, very bouldery	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.64
						Stones or boulders on surface	0.53

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
1075C:							
Potsdam, very bouldery-----------	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.64
						Stones or boulders on surface	0.53
						Slope	0.16
1078B:							
Crary, very bouldery	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.84
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
						Stones or boulders on surface	0.53
1080B:							
Becket, very bouldery-----------	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.79
						Stones or boulders on surface	0.53
						Depth to saturated zone	0.10
1080C:							
Becket, very bouldery-----------	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.79
						Stones or boulders on surface	0.53
						Slope	0.16
						Depth to saturated zone	0.10
1080E:							
Becket, very bouldery-----------	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53	Slope	0.04	Depth to pan	0.79
						Stones or boulders on surface	0.53
						Depth to saturated zone	0.10

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
1081B:							
Skerry, very bouldery	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to saturated zone	0.75
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to pan	0.54
						Stones or boulders on surface	0.53
1081C:							
Skerry, very bouldery	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to saturated zone	0.75
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Slope	0.63
						Depth to pan	0.54
						Stones or boulders on surface	0.53
1091C:							
Lyman, very bouldery	35	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.46
						Slope	0.04
Becket, very bouldery	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.79
						Stones or boulders on surface	0.53
						Slope	0.16
						Depth to saturated zone	0.10
Tunbridge, very bouldery	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Slope	0.16
						Droughty	0.02

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
1091E:							
Lyman, very bouldery	35	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53	Slope	0.22	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.46
Becket, very bouldery-----------	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53			Depth to pan	0.79
						Stones or boulders on surface	0.53
						Depth to saturated zone	0.10
Tunbridge, very bouldery-----------	20	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53	Slope	0.22	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Droughty	0.02
1118C:							
Adams---------------	55	Not limited		Not limited		Somewhat limited	
						Slope	0.16
						Droughty	0.09
Colton--------------	30	Not limited		Not limited		Somewhat limited	
						Droughty	0.97
						Slope	0.16
1118D:							
Adams---------------	50	Somewhat limited		Not limited		Very limited	
		Slope	0.92			Too steep	1.00
						Droughty	0.09
Colton--------------	35	Somewhat limited		Not limited		Very limited	
		Slope	0.92			Too steep	1.00
						Droughty	0.97
1170B:							
Henniker------------	75	Not limited		Not limited		Somewhat limited	
						Depth to pan	0.35

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
1170C:							
Henniker-----------	80	Not limited		Not limited		Somewhat limited	
						Slope	0.63
						Depth to pan	0.35
1170E:							
Henniker-----------	85	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Too steep	1.00
						Depth to pan	0.35
1171B:							
Metacomet----------	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
						Depth to pan	0.35
						Droughty	0.01
1171C:							
Metacomet----------	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
						Depth to pan	0.35
						Slope	0.16
						Droughty	0.01
1172B:							
Pillsbury, somewhat poorly drained-----	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.62	Depth to saturated zone	0.62	Depth to saturated zone	0.83
						Depth to pan	0.20
						Large stones	0.01
1178A:							
Adirondack, very bouldery----------	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.79
						Stones or boulders on surface	0.53
1178B:							
Adirondack, very bouldery----------	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.79
						Stones or boulders on surface	0.53

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
1185A:							
Wonsqueak, undrained	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
1190C:							
Tunbridge, very bouldery-----------	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Slope	0.16
						Droughty	0.02
Lyman, very bouldery	25	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.46
						Slope	0.04
1190E:							
Tunbridge, very bouldery-----------	50	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53	Slope	0.08	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Droughty	0.02
Lyman, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53	Slope	0.22	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.46

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
1190F:							
Tunbridge, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Droughty	0.02
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.46
1193A:							
Wonsqueak	60	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
Humaquepts, frequently flooded	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
1291C:							
Becket, very bouldery	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.79
						Stones or boulders on surface	0.53
						Slope	0.16
						Depth to saturated zone	0.10
Lyman, very bouldery	25	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.46
						Slope	0.04

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
Tunbridge, very bouldery	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Slope	0.16
						Droughty	0.02
1291D:							
Becket, very bouldery	40	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Too steep	1.00
		Slope	0.50			Depth to pan	0.79
						Stones or boulders on surface	0.53
						Depth to saturated zone	0.10
Lyman, very bouldery	25	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.92	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53			Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.46
Tunbridge, very bouldery	20	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.92	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53			Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Droughty	0.02
1292C:							
Becket, very bouldery	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.79
						Stones or boulders on surface	0.53
						Slope	0.16
						Depth to saturated zone	0.10

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
Tunbridge, very bouldery	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Slope	0.16
						Droughty	0.02
1292E:							
Becket, very bouldery	50	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53	Slope	0.22	Depth to pan	0.79
						Stones or boulders on surface	0.53
						Depth to saturated zone	0.10
Tunbridge, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53	Slope	0.04	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Droughty	0.02
1292F:							
Becket, very bouldery	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.79
						Stones or boulders on surface	0.53
						Depth to saturated zone	0.10
Tunbridge, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Droughty	0.02

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
1293C:							
Skerry, very bouldery	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to saturated zone	0.75
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to pan	0.54
						Stones or boulders on surface	0.53
						Slope	0.04
Tunbridge, very bouldery	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Slope	0.16
						Droughty	0.02
1380C:							
Becket, very bouldery	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.79
						Slope	0.63
						Stones or boulders on surface	0.53
						Depth to saturated zone	0.10
Skerry, very bouldery	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to saturated zone	0.75
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to pan	0.54
						Stones or boulders on surface	0.53
						Slope	0.01
1391C:							
Lyman, very bouldery	40	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.46
						Slope	0.04

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
Tunbridge, very bouldery	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Slope	0.16
						Droughty	0.02
Rock Outcrop	15	Not rated		Not rated		Not rated	
1391D:							
Lyman, very bouldery	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.92	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53			Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.46
Tunbridge, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.92	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53			Depth to bedrock	0.97
						Stones or boulders on surface	0.53
						Droughty	0.02
Rock Outcrop	15	Not rated		Not rated		Not rated	
1580B:							
Adirondack, very bouldery	50	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.79
						Stones or boulders on surface	0.53

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
Skerry, very bouldery	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to saturated zone	0.75
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to pan	0.54
						Stones or boulders on surface	0.53
1591F:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.46
Berkshire, very bouldery	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
1911C:							
Potsdam, very bouldery	60	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to pan	0.64
						Slope	0.63
						Stones or boulders on surface	0.53
Lyman, very bouldery	25	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.46
						Slope	0.16
1911E:							
Potsdam, very bouldery	60	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53	Slope	0.08	Depth to pan	0.64
						Stones or boulders on surface	0.53

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
Lyman, very bouldery	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Stones or boulders on surface	0.53	Too steep	1.00
		Stones or boulders on surface	0.53	Slope	0.08	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.46
1920B:							
Monadnock, very bouldery-----------	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
1920C:							
Monadnock, very bouldery-----------	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Slope	0.16
1920E:							
Monadnock, very bouldery-----------	80	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Too steep	1.00
		Slope	0.50			Stones or boulders on surface	0.53
1941A:							
Sabattis, very bouldery-----------	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Large stones	0.01
2170B:							
Henniker, very stony	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Stones or boulders on surface	0.53
						Depth to pan	0.35

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
2170C:							
Henniker, very stony	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Slope	0.63
						Stones or boulders on surface	0.53
						Depth to pan	0.35
2170E:							
Henniker, very stony	75	Somewhat limited		Somewhat limited		Very limited	
		Stones or boulders on surface	0.53	Stones or boulders on surface	0.53	Too steep	1.00
		Slope	0.50			Stones or boulders on surface	0.53
						Depth to pan	0.35
2171B:							
Metacomet, very stony--------------	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
		Stones or boulders on surface	0.19	Stones or boulders on surface	0.19	Depth to pan	0.35
						Stones or boulders on surface	0.19
						Droughty	0.01
2171C:							
Metacomet, very stony--------------	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
		Stones or boulders on surface	0.19	Stones or boulders on surface	0.19	Slope	0.63
						Depth to pan	0.35
						Stones or boulders on surface	0.19
						Droughty	0.01
2172B:							
Pillsbury, very stony--------------	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.62	Depth to saturated zone	0.62	Depth to saturated zone	0.83
		Stones or boulders on surface	0.19	Stones or boulders on surface	0.19	Depth to pan	0.20
						Stones or boulders on surface	0.19
						Large stones	0.08

Table 12.—Paths, Trails and Golf Fairways—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DeB:							
Deerfield	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.44	Too sandy	0.44	Droughty	0.67
						Depth to saturated zone	0.08
GP:							
Pits, sand and gravel	80	Not rated		Not rated		Not rated	

Table 13.—Dwellings and Small Commercial Buildings

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3A:							
Endoaquolls, frequently flooded	55	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Hapludolls, frequently flooded	30	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	0.99		
4C:							
Udorthents, smoothed	75	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.07	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.01	Slope	0.01	Depth to saturated zone	0.07
5C:							
Udorthents, refuse substratum	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
				Shrink-swell	0.50		
6A:							
Saprists, frequently ponded	40	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00	Subsidence	1.00	Organic matter content	1.00
		Subsidence	1.00			Subsidence	1.00
Aquents, frequently ponded	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
7B:							
Endoaquents, smoothed	75	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
10A:							
Pleasant Lake	45	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00	Organic matter content	1.00	Organic matter content	1.00
Burnt Vly	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00	Subsidence	1.00	Organic matter content	1.00
		Subsidence	1.00			Subsidence	1.00
11B:							
Hinckley	40	Not limited		Not limited		Somewhat limited	
						Slope	0.50
Windsor	35	Not limited		Not limited		Somewhat limited	
						Slope	0.12
11C:							
Hinckley	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
Windsor	35	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
11D:							
Hinckley	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Windsor	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
11E:							
Hinckley	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Windsor	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
13F:							
Lansing	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Mohawk	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
16E:							
Broadalbin	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to thin cemented pan	0.97		

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
17D:							
Hollis	60	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Too steep	1.00	Too steep	1.00	Slope	1.00
Rock outcrop	15	Not rated		Not rated		Not rated	
18C:							
Chatfield	50	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.84	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to hard bedrock	0.84
Hollis	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.01	Slope	0.01	Depth to hard bedrock	1.00
18D:							
Chatfield	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.84	Depth to hard bedrock	1.00	Depth to hard bedrock	0.84
Hollis	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
21B:							
Galway	75	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Depth to hard bedrock	0.71
						Slope	0.12
21C:							
Galway	75	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to hard bedrock	0.71
22B:							
Georgia	75	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
						Slope	0.12
24B:							
Farmington	75	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
24C:							
Farmington	75	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to hard bedrock	1.00
25A:							
Wonsqueak, ponded	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00	Subsidence	1.00	Organic matter content	1.00
		Subsidence	1.00			Subsidence	1.00
Colton	25	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Rumney	20	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
25D:							
Farmington, very rocky	70	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Too steep	1.00	Too steep	1.00	Slope	1.00
32B:							
Mohawk	75	Not limited		Not limited		Somewhat limited	
						Slope	0.12
32C:							
Mohawk	75	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
32D:							
Mohawk	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
33B:							
Angola	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to hard bedrock	0.29	Depth to hard bedrock	1.00	Depth to hard bedrock	0.29
34A:							
Manheim	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
34B:							
Manheim	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.12

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
42B:							
Lansing	75	Not limited		Not limited		Somewhat limited	
						Slope	0.12
42C:							
Lansing	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
42D:							
Lansing	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
44A:							
Appleton	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
44B:							
Appleton	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.12
47A:							
Ilion	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
47B:							
Ilion	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
49A:							
Fonda	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
72B:							
Broadalbin, well drained	50	Not limited		Somewhat limited		Somewhat limited	
				Depth to thin cemented pan	0.97	Slope	0.12
Broadalbin, moderately well drained	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
				Depth to thin cemented pan	0.97		
72C:							
Broadalbin	75	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Depth to thin cemented pan	0.97	Slope	1.00
				Slope	0.63		

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
72D:							
Broadalbin----------	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to thin cemented pan	0.97		
74A:							
Mosherville---------	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to thick cemented pan	1.00	Depth to thick cemented pan	1.00	Depth to thick cemented pan	1.00
74B:							
Mosherville---------	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to thick cemented pan	1.00	Depth to thick cemented pan	1.00	Depth to thick cemented pan	1.00
						Slope	0.12
77A:							
Sun-----------------	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
81B:							
Charlton------------	80	Not limited		Not limited		Somewhat limited	
						Slope	0.50
81C:							
Charlton------------	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
81D:							
Charlton------------	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
89A:							
Whitman-------------	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
90B:							
Palatine------------	75	Not limited		Somewhat limited		Somewhat limited	
				Depth to soft bedrock	0.01	Slope	0.50
90C:							
Palatine------------	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
				Depth to soft bedrock	0.01		
90D:							
Palatine------------	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to soft bedrock	0.01		

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
94B:							
Paxton	75	Not limited		Somewhat limited		Somewhat limited	
				Depth to saturated zone	0.99	Slope	0.50
94C:							
Paxton	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Depth to saturated zone	0.99	Slope	1.00
				Slope	0.63		
94D:							
Paxton	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to saturated zone	0.99		
95B:							
Woodbridge	75	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.81	Depth to saturated zone	1.00	Depth to saturated zone	0.81
96B:							
Ridgebury	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
99A:							
Timakwa, undrained	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
109A:							
Catden, undrained	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00			Organic matter content	1.00
112A:							
Scio	45	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
Urban land	40	Not rated		Not rated		Not rated	
114B:							
Windsor	60	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Urban land	30	Not rated		Not rated		Not rated	
114C:							
Windsor	60	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
Urban land	30	Not rated		Not rated		Not rated	

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
114D:							
Windsor	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Urban land	30	Not rated		Not rated		Not rated	
115B:							
Udipsamments, smoothed	85	Not limited		Not limited		Not limited	
116:							
Urban land	90	Not rated		Not rated		Not rated	
117B:							
Broadalbin, moderately well drained	50	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
				Depth to thin cemented pan	0.97	Slope	0.12
Urban land	30	Not rated		Not rated		Not rated	
117C:							
Broadalbin, well drained	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Depth to thin cemented pan	0.97	Slope	1.00
				Slope	0.63		
Urban land	30	Not rated		Not rated		Not rated	
130B:							
Hudson	75	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
130C:							
Hudson	80	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to saturated zone	0.88
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
134A:							
Rhinebeck	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
134B:							
Rhinebeck	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
135A:							
Churchville	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
135B:							
Churchville	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
137A:							
Madalin	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
151B:							
Unadilla	80	Not limited		Not limited		Not limited	
152A:							
Scio	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
152B:							
Scio	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
154A:							
Tonawanda	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
154B:							
Tonawanda	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
157A:							
Birdsall	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
160A:							
Agawam	75	Not limited		Not limited		Not limited	
160B:							
Agawam	75	Not limited		Not limited		Somewhat limited	
						Slope	0.50
162B:							
Ninigret	75	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
165A:							
Stafford	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
170B:							
Windsor	75	Not limited		Not limited		Not limited	
170C:							
Windsor	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
170D:							
Windsor	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
179A:							
Scarboro	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
182A:							
Elmridge	75	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
				Shrink-swell	0.50		
182B:							
Elmridge	75	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
				Shrink-swell	0.50	Slope	0.50
187A:							
Aeric Epiaquepts, somewhat poorly drained	50	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Aeric Epiaquepts, poorly drained	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
189A:							
Cheektowaga	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
197A:							
Fredon, somewhat poorly drained	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
201B:							
Alton	80	Not limited		Not limited		Not limited	
201C:							
Alton	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
201D:							
Alton	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
210A:							
Merrimac	75	Not limited		Not limited		Not limited	
210B:							
Merrimac	75	Not limited		Not limited		Not limited	
210C:							
Merrimac	75	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
210D:							
Merrimac	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
211A:							
Burnt Vly	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00	Subsidence	1.00	Organic matter content	1.00
		Subsidence	1.00			Subsidence	1.00
Humaquepts	25	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Pleasant Lake	20	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00	Organic matter content	1.00	Organic matter content	1.00
212A:							
Hinckley	80	Not limited		Not limited		Not limited	
212B:							
Hinckley	80	Not limited		Not limited		Somewhat limited	
						Slope	0.50
212C:							
Hinckley	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
232A:							
Teel	75	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
244A:							
Darien	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
244B:							
Darien	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.12
363A:							
Adams	85	Not limited		Not limited		Not limited	
363B:							
Adams	80	Not limited		Not limited		Somewhat limited	
						Slope	0.50
363D:							
Adams	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
363F:							
Adams	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
365A:							
Naumburg	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Croghan	35	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
368A:							
Searsport	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Wonsqueak	25	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00	Subsidence	1.00	Organic matter content	1.00
		Subsidence	1.00			Subsidence	1.00
Naumburg	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
375A:							
Colton	45	Not limited		Not limited		Not limited	
Adams	40	Not limited		Not limited		Not limited	
375C:							
Colton	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
Adams	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
375D:							
Colton	45	Very limited Too steep	 1.00	Very limited Too steep	 1.00	Very limited Slope	 1.00
Adams	35	Very limited Too steep	 1.00	Very limited Too steep	 1.00	Very limited Slope	 1.00
650C:							
Monadnock, very bouldery	35	Somewhat limited Slope	 0.16	Somewhat limited Slope	 0.16	Very limited Slope	 1.00
Adams	30	Somewhat limited Slope	 0.16	Somewhat limited Slope	 0.16	Very limited Slope	 1.00
Colton	20	Somewhat limited Slope	 0.16	Somewhat limited Slope	 0.16	Very limited Slope	 1.00
650D:							
Monadnock, very bouldery	40	Very limited Too steep	 1.00	Very limited Too steep	 1.00	Very limited Slope	 1.00
Adams	30	Very limited Too steep	 1.00	Very limited Too steep	 1.00	Very limited Slope	 1.00
Colton	20	Very limited Too steep	 1.00	Very limited Too steep	 1.00	Very limited Slope	 1.00
651C:							
Monadnock, very bouldery	40	Somewhat limited Slope	 0.04	Somewhat limited Slope	 0.04	Very limited Slope	 1.00
Tunbridge, rolling, very bouldery	25	Somewhat limited Depth to hard bedrock Slope	 0.97 0.16	Very limited Depth to hard bedrock Slope	 1.00 0.16	Very limited Slope Depth to hard bedrock	 1.00 0.97
Sabattis, very bouldery	15	Very limited Ponding Depth to saturated zone	 1.00 1.00	Very limited Ponding Depth to saturated zone	 1.00 1.00	Very limited Ponding Depth to saturated zone	 1.00 1.00
651D:							
Monadnock, very bouldery	45	Very limited Too steep	 1.00	Very limited Too steep	 1.00	Very limited Slope	 1.00
Tunbridge, hilly, very bouldery	35	Very limited Too steep Depth to hard bedrock	 1.00 0.97	Very limited Too steep Depth to hard bedrock	 1.00 1.00	Very limited Slope Depth to hard bedrock	 1.00 0.97

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
651F:							
Monadnock, very bouldery	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Tunbridge, very bouldery	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to hard bedrock	0.97
653C:							
Monadnock, very bouldery	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
653D:							
Monadnock, very bouldery	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
708B:							
Adirondack, very bouldery	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Sabattis, very bouldery	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Tughill, very bouldery	20	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Large stones	0.02	Large stones	0.02	Large stones	0.02
711C:							
Adirondack, very bouldery	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.01	Slope	0.01	Slope	1.00
Tunbridge, very bouldery	30	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to hard bedrock	0.97
Burnt Vly	15	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00	Subsidence	1.00	Organic matter content	1.00
		Subsidence	1.00			Subsidence	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
721C:							
Becket, very bouldery	40	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.20	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to saturated zone	0.20
Tunbridge, very bouldery	25	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to hard bedrock	0.97
Skerry, very bouldery	20	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
						Slope	0.50
721D:							
Becket, very bouldery	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	0.20	Depth to saturated zone	1.00	Depth to saturated zone	0.20
Tunbridge, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to hard bedrock	0.97
721F:							
Becket, very bouldery	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	0.20	Depth to saturated zone	1.00	Depth to saturated zone	0.20
Tunbridge, very bouldery	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to hard bedrock	0.97
723C:							
Becket, very bouldery	80	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.20	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to saturated zone	0.20
723D:							
Becket, very bouldery	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	0.20	Depth to saturated zone	1.00	Depth to saturated zone	0.20

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
725B:							
Skerry, very bouldery-----------	55	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
						Slope	0.50
Becket, very bouldery-----------	30	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.20	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to saturated zone	0.20
727B:							
Skerry, very bouldery-----------	45	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
						Slope	0.50
Adirondack, very bouldery-----------	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
741C:							
Potsdam, very bouldery-----------	50	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Tunbridge, very bouldery-----------	30	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to hard bedrock	0.97
741D:							
Potsdam, very bouldery-----------	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Tunbridge, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to hard bedrock	0.97
743C:							
Potsdam, very bouldery-----------	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
743D:							
Potsdam, very bouldery-----------	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
745C:							
Crary, very bouldery	40	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to saturated zone	0.98
Potsdam, very bouldery	35	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
747B:							
Crary, very bouldery	45	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
						Slope	0.12
Adirondack, very bouldery	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
831C:							
Tunbridge, very bouldery	50	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to hard bedrock	0.97
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
831D:							
Tunbridge, very bouldery	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to hard bedrock	0.97
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
831F:							
Tunbridge, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to hard bedrock	0.97
Lyman, very bouldery	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
833C:							
Tunbridge, very bouldery	45	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to hard bedrock	0.97
Adirondack, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Lyman, very bouldery	15	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
836C:							
Tunbridge, very bouldery	45	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to hard bedrock	0.97
Wonsqueak	20	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00	Subsidence	1.00	Organic matter content	1.00
		Subsidence	1.00			Subsidence	1.00
Knob Lock, very bouldery	15	Very limited		Very limited		Very limited	
		Organic matter content	1.00	Organic matter content	1.00	Organic matter content	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
851C:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
Knob Lock, very bouldery	30	Very limited		Very limited		Very limited	
		Organic matter content	1.00	Organic matter content	1.00	Organic matter content	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
851D:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
Knob Lock, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Organic matter content	1.00	Organic matter content	1.00	Organic matter content	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
851F:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Knob Lock, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Organic matter content	1.00	Organic matter content	1.00	Organic matter content	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
931D:							
Mundalite, very bouldery-----------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to saturated zone	0.94		
Rawsonville, very bouldery-----------	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Depth to hard bedrock	0.71
931F:							
Mundalite, very bouldery-----------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to saturated zone	0.94		
Rawsonville, very bouldery-----------	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Depth to hard bedrock	0.71
941C:							
Rawsonville, very bouldery-----------	50	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to hard bedrock	0.71
Hogback, very bouldery-----------	25	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.16	Slope	0.16	Slope	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
941D:							
Rawsonville, very bouldery	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Depth to hard bedrock	0.71
Hogback, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
941F:							
Rawsonville, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Depth to hard bedrock	0.71
Hogback, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
1018B:							
Colton	75	Not limited		Not limited		Not limited	
1018C:							
Colton	75	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
1018D:							
Colton	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
1022A:							
Croghan	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
1023A:							
Naumburg	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
1024A:							
Searsport	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
1025A:							
Adams	85	Not limited		Not limited		Not limited	
1025B:							
Adams	85	Not limited		Not limited		Somewhat limited	
						Slope	0.50

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
1025C:							
Adams	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
1025E:							
Adams	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
1025F:							
Adams	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
1027B:							
Allagash	75	Not limited		Not limited		Somewhat limited	
						Slope	0.12
1027C:							
Allagash	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
1027E:							
Allagash	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
1070B:							
Berkshire, very bouldery	75	Not limited		Not limited		Somewhat limited	
						Slope	0.12
1070C:							
Berkshire, very bouldery	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
1070E:							
Berkshire, very bouldery	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
1075B:							
Potsdam, very bouldery	80	Not limited		Not limited		Somewhat limited	
						Slope	0.12
1075C:							
Potsdam, very bouldery	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
1078B:							
Crary, very bouldery	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
						Slope	0.12
1080B:							
Becket, very bouldery	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.20	Depth to saturated zone	1.00	Slope	0.50
						Depth to saturated zone	0.20

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
1080C:							
Becket, very bouldery----------	80	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.20	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to saturated zone	0.20
1080E:							
Becket, very bouldery----------	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	0.20	Depth to saturated zone	1.00	Depth to saturated zone	0.20
1081B:							
Skerry, very bouldery----------	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
						Slope	0.12
1081C:							
Skerry, very bouldery----------	80	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to saturated zone	0.98
1091C:							
Lyman, very bouldery	35	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to hard bedrock	1.00
Becket, very bouldery----------	30	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.20	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to saturated zone	0.20
Tunbridge, very bouldery----------	20	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to hard bedrock	0.97
1091E:							
Lyman, very bouldery	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Becket, very bouldery----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	0.20	Depth to saturated zone	1.00	Depth to saturated zone	0.20

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
Tunbridge, very bouldery	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to hard bedrock	0.97
1118C:							
Adams	55	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
Colton	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
1118D:							
Adams	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Colton	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
1170B:							
Henniker	75	Not limited		Somewhat limited		Somewhat limited	
				Depth to saturated zone	0.99	Slope	0.50
1170C:							
Henniker	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Depth to saturated zone	0.99	Slope	1.00
				Slope	0.63		
1170E:							
Henniker	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to saturated zone	0.99		
1171B:							
Metacomet	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
						Slope	0.12
1171C:							
Metacomet	80	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to saturated zone	0.98
1172B:							
Pillsbury, somewhat poorly drained	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
1178A:							
Adirondack, very bouldery	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
1178B:							
Adirondack, very bouldery	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
1185A:							
Wonsqueak, undrained	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00	Subsidence	1.00	Organic matter content	1.00
		Subsidence	1.00			Subsidence	1.00
1190C:							
Tunbridge, very bouldery	50	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to hard bedrock	0.97
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
1190E:							
Tunbridge, very bouldery	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to hard bedrock	0.97
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
1190F:							
Tunbridge, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to hard bedrock	0.97
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
1193A:							
Wonsqueak	60	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Organic matter content	1.00	Subsidence	1.00	Organic matter content	1.00
		Subsidence	1.00			Subsidence	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
Humaquepts, frequently flooded-	30	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
1291C:							
Becket, very bouldery-----------	35	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.20	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to saturated zone	0.20
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to hard bedrock	1.00
Tunbridge, very bouldery-----------	20	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to hard bedrock	0.97
1291D:							
Becket, very bouldery-----------	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	0.20	Depth to saturated zone	1.00	Depth to saturated zone	0.20
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Tunbridge, very bouldery-----------	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to hard bedrock	0.97
1292C:							
Becket, very bouldery-----------	50	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.20	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to saturated zone	0.20
Tunbridge, very bouldery-----------	25	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to hard bedrock	0.97

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
1292E:							
Becket, very bouldery	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	0.20	Depth to saturated zone	1.00	Depth to saturated zone	0.20
Tunbridge, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to hard bedrock	0.97
1292F:							
Becket, very bouldery	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to saturated zone	0.20	Depth to saturated zone	1.00	Depth to saturated zone	0.20
Tunbridge, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to hard bedrock	0.97
1293C:							
Skerry, very bouldery	55	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to saturated zone	0.98
Tunbridge, very bouldery	25	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to hard bedrock	0.97
1380C:							
Becket, very bouldery	45	Somewhat limited		Very limited		Very limited	
		Slope	0.63	Depth to saturated zone	1.00	Slope	1.00
		Depth to saturated zone	0.20	Slope	0.63	Depth to saturated zone	0.20
Skerry, very bouldery	40	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.01	Slope	0.01	Depth to saturated zone	0.98
1391C:							
Lyman, very bouldery	40	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to hard bedrock	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
Tunbridge, very bouldery	30	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to hard bedrock	0.97
Rock outcrop	15	Not rated		Not rated		Not rated	
1391D:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Tunbridge, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to hard bedrock	0.97
Rock outcrop	15	Not rated		Not rated		Not rated	
1580B:							
Adirondack, very bouldery	50	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Skerry, very bouldery	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
						Slope	0.50
1591F:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Berkshire, very bouldery	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
1911C:							
Potsdam, very bouldery	60	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to hard bedrock	1.00
1911E:							
Potsdam, very bouldery	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
1920B:							
Monadnock, very bouldery-----------	75	Not limited		Not limited		Somewhat limited	
						Slope	0.12
1920C:							
Monadnock, very bouldery-----------	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
1920E:							
Monadnock, very bouldery-----------	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
1941A:							
Sabattis, very bouldery-----------	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
2170B:							
Henniker, very stony	75	Not limited		Somewhat limited		Somewhat limited	
				Depth to saturated zone	0.99	Slope	0.50
2170C:							
Henniker, very stony	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Depth to saturated zone	0.99	Slope	1.00
				Slope	0.63		
2170E:							
Henniker, very stony	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
				Depth to saturated zone	0.99		
2171B:							
Metacomet, very stony--------------	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
						Slope	0.50
2171C:							
Metacomet, very stony--------------	80	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to saturated zone	0.98

Table 13.—Dwellings and Small Commercial Buildings—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
2172B:							
Pillsbury, very stony	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
DeB:							
Deerfield	75	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.16	Depth to saturated zone	1.00	Slope	0.50
						Depth to saturated zone	0.16
GP:							
Pits, sand and gravel	80	Not limited		Not limited		Not limited	

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3A:							
Endoaquolls, frequently flooded	55	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		
Hapludolls, frequently flooded	30	Very limited		Very limited		Very limited	
		Flooding	1.00	Cutbanks cave	1.00	Flooding	1.00
		Frost action	0.50	Depth to saturated zone	0.99		
				Flooding	0.80		
4C:							
Udorthents, smoothed	75	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.03
		Depth to saturated zone	0.03	Cutbanks cave	0.10	Slope	0.01
		Slope	0.01	Slope	0.01		
5C:							
Udorthents, refuse substratum	70	Not rated		Not rated		Not rated	
6A:							
Saprists, frequently ponded	40	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Organic matter content	1.00
		Frost action	1.00	Organic matter content	1.00	Depth to saturated zone	1.00
		Subsidence	1.00				
Aquents, frequently ponded	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
7B:							
Endoaquents, smoothed	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Droughty	0.03
		Flooding	0.40				

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
10A:							
Pleasant Lake	45	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Organic matter content	1.00		
		Frost action	1.00				
Burnt Vly	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
		Subsidence	1.00	Organic matter content	1.00		
11B:							
Hinckley	40	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.98
						Gravel	0.01
Windsor	35	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.37
11C:							
Hinckley	40	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Droughty	0.98
				Slope	0.63	Slope	0.63
						Gravel	0.01
Windsor	35	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Slope	0.63
				Slope	0.63	Droughty	0.37
11D:							
Hinckley	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.98
						Gravel	0.01
Windsor	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.37
11E:							
Hinckley	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.98
						Gravel	0.01
Windsor	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.37
13F:							
Lansing	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10		

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
Mohawk	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10		
16E:							
Broadalbin	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to thin cemented pan	0.97	Depth to pan	0.97
				Dense layer	0.50	Droughty	0.05
				Cutbanks cave	0.10		
17D:							
Hollis	60	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50			Droughty	0.56
Rock outcrop	15	Not rated		Not rated		Not rated	
18C:							
Chatfield	50	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.84	Depth to hard bedrock	1.00	Depth to bedrock	0.84
		Frost action	0.50	Slope	0.16	Slope	0.16
		Slope	0.16	Cutbanks cave	0.10		
Hollis	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Slope	0.01	Droughty	0.56
		Slope	0.01			Slope	0.01
18D:							
Chatfield	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.84	Too steep	1.00	Depth to bedrock	0.84
		Frost action	0.50	Cutbanks cave	0.10		
Hollis	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Droughty	0.56
21B:							
Galway	75	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Depth to bedrock	0.71
		Frost action	0.50	Cutbanks cave	0.10		
21C:							
Galway	75	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Depth to bedrock	0.71
		Frost action	0.50	Slope	0.16	Slope	0.16
		Slope	0.16	Cutbanks cave	0.10		

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
22B:							
Georgia	75	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Frost action	0.50	Cutbanks cave	0.10		
24B:							
Farmington	75	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	1.00
24C:							
Farmington	75	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Slope	0.16	Droughty	1.00
		Slope	0.16	Cutbanks cave	0.10	Slope	0.16
25A:							
Wonsqueak, ponded	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Organic matter content	1.00		
		Subsidence	1.00	Cutbanks cave	0.10		
Colton	25	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.97
Rumney	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Flooding	0.60
		Flooding	1.00	Flooding	0.60		
25D:							
Farmington, very rocky	70	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Too steep	1.00	Too steep	1.00	Droughty	1.00
		Frost action	0.50	Cutbanks cave	0.10	Too steep	1.00
32B:							
Mohawk	75	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
32C:							
Mohawk	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
		Frost action	0.50	Cutbanks cave	0.10		
32D:							
Mohawk	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10		

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
33B:							
Angola	75	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to hard bedrock	1.00	Depth to saturated zone	0.99
		Depth to saturated zone	0.99	Depth to saturated zone	1.00	Depth to bedrock	0.29
		Depth to hard bedrock	0.29	Dense layer	0.50		
				Cutbanks cave	0.10		
34A:							
Manheim	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
34B:							
Manheim	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
42B:							
Lansing	75	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
42C:							
Lansing	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
		Frost action	0.50	Cutbanks cave	0.10		
42D:							
Lansing	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10		
44A:							
Appleton	80	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Depth to saturated zone	0.99	Cutbanks cave	0.10		
44B:							
Appleton	80	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Depth to saturated zone	0.99	Cutbanks cave	0.10		
47A:							
Ilion	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
47B:							
Ilion	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
49A:							
Fonda	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Too clayey	0.50		
		Shrink-swell	0.50	Cutbanks cave	0.10		
72B:							
Broadalbin, well drained	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Depth to thin cemented pan	0.97	Depth to pan	0.97
				Dense layer	0.50	Droughty	0.05
				Cutbanks cave	0.10		
Broadalbin, moderately well drained	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.56	Depth to saturated zone	1.00	Depth to pan	0.97
		Frost action	0.50	Depth to thin cemented pan	0.97	Depth to saturated zone	0.56
				Dense layer	0.50	Droughty	0.05
				Cutbanks cave	0.10		
72C:							
Broadalbin	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Depth to thin cemented pan	0.97	Depth to pan	0.97
		Frost action	0.50	Slope	0.63	Slope	0.63
				Dense layer	0.50	Droughty	0.05
				Cutbanks cave	0.10		
72D:							
Broadalbin	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to thin cemented pan	0.97	Depth to pan	0.97
				Dense layer	0.50	Droughty	0.05
				Cutbanks cave	0.10		
74A:							
Mosherville	80	Very limited		Very limited		Very limited	
		Depth to thick cemented pan	1.00	Depth to thick cemented pan	1.00	Depth to pan	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Dense layer	0.50	Droughty	0.97
				Cutbanks cave	0.10		
74B:							
Mosherville	75	Very limited		Very limited		Very limited	
		Depth to thick cemented pan	1.00	Depth to thick cemented pan	1.00	Depth to pan	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Dense layer	0.50	Droughty	0.97
				Cutbanks cave	0.10		

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
77A:							
Sun	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10	Depth to pan	0.01
81B:							
Charlton	80	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
81C:							
Charlton	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
		Frost action	0.50	Cutbanks cave	0.10		
81D:							
Charlton	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10		
89A:							
Whitman	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to pan	1.00
		Frost action	1.00	Dense layer	0.50	Depth to saturated zone	1.00
						Droughty	0.22
90B:							
Palatine	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Dense layer	0.50	Depth to bedrock	0.01
				Cutbanks cave	0.10		
				Depth to soft bedrock	0.01		
90C:							
Palatine	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
		Frost action	0.50	Dense layer	0.50	Depth to bedrock	0.01
				Cutbanks cave	0.10		
				Depth to soft bedrock	0.01		
90D:							
Palatine	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Dense layer	0.50	Depth to bedrock	0.01
				Cutbanks cave	0.10		
				Depth to soft bedrock	0.01		
94B:							
Paxton	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	0.99	Depth to pan	0.35
				Cutbanks cave	0.10		

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
94C:							
Paxton	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Depth to saturated zone	0.99	Slope	0.63
		Frost action	0.50	Slope	0.63	Depth to pan	0.35
				Cutbanks cave	0.10		
94D:							
Paxton	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to saturated zone	0.99	Depth to pan	0.35
				Cutbanks cave	0.10		
95B:							
Woodbridge	75	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to pan	0.79
		Depth to saturated zone	0.48	Cutbanks cave	0.10	Depth to saturated zone	0.48
						Droughty	0.01
96B:							
Ridgebury	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10	Depth to pan	0.99
						Droughty	0.35
99A:							
Timakwa, undrained	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
		Subsidence	1.00	Organic matter content	1.00		
109A:							
Catden, undrained	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Organic matter content	1.00	Large stones	0.32
		Frost action	1.00				
112A:							
Scio	45	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Depth to saturated zone	0.56	Cutbanks cave	0.10		
Urban land	40	Not rated		Not rated		Not rated	
114B:							
Windsor	60	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.37
Urban land	30	Not rated		Not rated		Not rated	

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
114C:							
Windsor	60	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.16	Cutbanks cave	1.00	Droughty	0.37
				Slope	0.16	Slope	0.16
Urban land	30	Not rated		Not rated		Not rated	
114D:							
Windsor	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.37
Urban land	30	Not rated		Not rated		Not rated	
115B:							
Udipsamments, smoothed	85	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.56
116:							
Urban land	90	Not rated		Not rated		Not rated	
117B:							
Broadalbin, moderately well drained	50	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.56	Depth to saturated zone	1.00	Depth to pan	0.97
		Frost action	0.50	Depth to thin cemented pan	0.97	Depth to saturated zone	0.56
				Dense layer	0.50	Droughty	0.05
				Cutbanks cave	0.10		
Urban land	30	Not rated		Not rated		Not rated	
117C:							
Broadalbin, well drained	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Depth to thin cemented pan	0.97	Depth to pan	0.97
		Frost action	0.50	Slope	0.63	Slope	0.63
				Dense layer	0.50	Droughty	0.05
				Cutbanks cave	0.10		
Urban land	30	Not rated		Not rated		Not rated	
130B:							
Hudson	75	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.56	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
130C:							
Hudson	80	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Depth to saturated zone	1.00	Slope	0.63
		Depth to saturated zone	0.56	Slope	0.63	Depth to saturated zone	0.56
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
134A:							
Rhinebeck	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50	Too clayey	0.02		
134B:							
Rhinebeck	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50	Too clayey	0.02		
135A:							
Churchville	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
135B:							
Churchville	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
137A:							
Madalin	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50	Too clayey	0.01		
151B:							
Unadilla	80	Very limited		Somewhat limited		Not limited	
		Frost action	1.00	Cutbanks cave	0.10		
152A:							
Scio	80	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Depth to saturated zone	0.56	Cutbanks cave	0.10		
152B:							
Scio	80	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Depth to saturated zone	0.56	Cutbanks cave	0.10		
154A:							
Tonawanda	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
154B:							
Tonawanda	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
157A:							
Birdsall	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
160A:							
Agawam	75	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
160B:							
Agawam	75	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
162B:							
Ninigret	75	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Frost action	0.50	Cutbanks cave	1.00		
165A:							
Stafford	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.72
170B:							
Windsor	75	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.37
170C:							
Windsor	80	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Slope	0.63
				Slope	0.63	Droughty	0.37
170D:							
Windsor	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.37
179A:							
Scarboro	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
182A:							
Elmridge	75	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.56	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Frost action	0.50	Too clayey	0.50		
				Cutbanks cave	0.10		
182B:							
Elmridge	75	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.56	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Frost action	0.50	Too clayey	0.50		
				Cutbanks cave	0.10		

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
187A:							
Aeric Epiaquepts, somewhat poorly drained	50	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Depth to saturated zone	0.99	Too clayey	0.12		
				Cutbanks cave	0.10		
Aeric Epiaquepts, poorly drained	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Too clayey	0.12		
				Cutbanks cave	0.10		
189A:							
Cheektowaga	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
		Low strength	1.00	Too clayey	0.50		
		Shrink-swell	0.50				
197A:							
Fredon, somewhat poorly drained	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
201B:							
Alton	80	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.02
						Gravel	0.01
201C:							
Alton	80	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Slope	0.63
		Frost action	0.50	Slope	0.63	Droughty	0.02
						Gravel	0.01
201D:							
Alton	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.02
						Gravel	0.01
210A:							
Merrimac	75	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.02
210B:							
Merrimac	75	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.02
210C:							
Merrimac	75	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Slope	0.63
				Slope	0.63	Droughty	0.02

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
210D:							
Merrimac	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.02
211A:							
Burnt Vly	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
		Subsidence	1.00	Organic matter content	1.00		
Humaquepts	25	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		
Pleasant Lake	20	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Organic matter content	1.00		
		Frost action	1.00				
212A:							
Hinckley	80	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.98
						Gravel	0.01
212B:							
Hinckley	80	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.98
						Gravel	0.01
212C:							
Hinckley	80	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Droughty	0.98
				Slope	0.63	Slope	0.63
						Gravel	0.01
232A:							
Teel	75	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	1.00	Flooding	0.60
		Frost action	0.50	Flooding	0.60		
244A:							
Darien	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
244B:							
Darien	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
363A:							
Adams	85	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.09
363B:							
Adams	80	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.09
363D:							
Adams	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.09
363F:							
Adams	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.09
365A:							
Naumburg	45	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.29
Croghan	35	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.56	Depth to saturated zone	1.00	Depth to saturated zone	0.56
				Cutbanks cave	1.00	Droughty	0.30
368A:							
Searsport	35	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00		
Wonsqueak	25	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Organic matter content	1.00		
		Subsidence	1.00	Cutbanks cave	0.10		
Naumburg	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.29
375A:							
Colton	45	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.97
Adams	40	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.09

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
375C:							
Colton	45	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Droughty	0.97
				Slope	0.63	Slope	0.63
Adams	40	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.16	Cutbanks cave	1.00	Slope	0.16
				Slope	0.16	Droughty	0.09
375D:							
Colton	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.97
Adams	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.09
650C:							
Monadnock, very bouldery	35	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.53
		Slope	0.16	Slope	0.16	Slope	0.16
Adams	30	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.16	Cutbanks cave	1.00	Slope	0.16
				Slope	0.16	Droughty	0.09
Colton	20	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.16	Cutbanks cave	1.00	Droughty	0.97
				Slope	0.16	Slope	0.16
650D:							
Monadnock, very bouldery	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.53
Adams	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.09
Colton	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.97
651C:							
Monadnock, very bouldery	40	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.53
		Slope	0.04	Slope	0.04	Slope	0.04

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
Tunbridge, rolling, very bouldery	25	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to bedrock	0.97
		Frost action	0.50	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Cutbanks cave	0.10	Slope	0.16
						Droughty	0.02
Sabattis, very bouldery	15	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10	Stones or boulders on surface	0.53
						Large stones	0.01
651D:							
Monadnock, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.53
Tunbridge, hilly, very bouldery	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.97	Too steep	1.00	Depth to bedrock	0.97
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
						Droughty	0.02
651F:							
Monadnock, very bouldery	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.53
Tunbridge, very bouldery	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.97	Too steep	1.00	Depth to bedrock	0.97
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
						Droughty	0.02
653C:							
Monadnock, very bouldery	80	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.53
		Slope	0.04	Slope	0.04	Slope	0.04

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
653D:							
Monadnock, very bouldery	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.53
708B:							
Adirondack, very bouldery	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to pan	0.79
						Stones or boulders on surface	0.53
Sabattis, very bouldery	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10	Stones or boulders on surface	0.53
						Large stones	0.01
Tughill, very bouldery	20	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Dense layer	0.50	Stones or boulders on surface	0.53
		Large stones	0.02	Cutbanks cave	0.10	Large stones	0.32
				Large stones	0.02		
711C:							
Adirondack, very bouldery	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to pan	0.79
		Slope	0.01	Slope	0.01	Stones or boulders on surface	0.53
						Slope	0.01
Tunbridge, very bouldery	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to bedrock	0.97
		Frost action	0.50	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Cutbanks cave	0.10	Slope	0.16
						Droughty	0.02
Burnt Vly	15	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
		Subsidence	1.00	Organic matter content	1.00		

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
721C:							
Becket, very bouldery	40	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to pan	0.79
		Slope	0.16	Cutbanks cave	1.00	Stones or boulders on surface	0.53
		Depth to saturated zone	0.10	Slope	0.16	Slope	0.16
						Depth to saturated zone	0.10
Tunbridge, very bouldery	25	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to bedrock	0.97
		Frost action	0.50	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Cutbanks cave	0.10	Slope	0.16
						Droughty	0.02
Skerry, very bouldery	20	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Frost action	0.50	Cutbanks cave	1.00	Depth to pan	0.54
						Stones or boulders on surface	0.53
721D:							
Becket, very bouldery	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to saturated zone	1.00	Depth to pan	0.79
		Depth to saturated zone	0.10	Cutbanks cave	1.00	Stones or boulders on surface	0.53
						Depth to saturated zone	0.10
Tunbridge, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.97	Too steep	1.00	Depth to bedrock	0.97
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
						Droughty	0.02
721F:							
Becket, very bouldery	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to saturated zone	1.00	Depth to pan	0.79
		Depth to saturated zone	0.10	Cutbanks cave	1.00	Stones or boulders on surface	0.53
						Depth to saturated zone	0.10

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
Tunbridge, very bouldery-----------	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.97	Too steep	1.00	Depth to bedrock	0.97
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
						Droughty	0.02
723C:							
Becket, very bouldery-----------	80	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to pan	0.79
		Slope	0.16	Cutbanks cave	1.00	Stones or boulders on surface	0.53
		Depth to saturated zone	0.10	Slope	0.16	Slope	0.16
						Depth to saturated zone	0.10
723D:							
Becket, very bouldery-----------	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to saturated zone	1.00	Depth to pan	0.79
		Depth to saturated zone	0.10	Cutbanks cave	1.00	Stones or boulders on surface	0.53
						Depth to saturated zone	0.10
725B:							
Skerry, very bouldery-----------	55	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Frost action	0.50	Cutbanks cave	1.00	Depth to pan	0.54
						Stones or boulders on surface	0.53
Becket, very bouldery-----------	30	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to pan	0.79
		Slope	0.16	Cutbanks cave	1.00	Stones or boulders on surface	0.53
		Depth to saturated zone	0.10	Slope	0.16	Slope	0.16
						Depth to saturated zone	0.10

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
727B:							
Skerry, very bouldery	45	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Frost action	0.50	Cutbanks cave	1.00	Depth to pan	0.54
						Stones or boulders on surface	0.53
Adirondack, very bouldery	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to pan	0.79
						Stones or boulders on surface	0.53
741C:							
Potsdam, very bouldery	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Dense layer	0.50	Depth to pan	0.64
		Slope	0.04	Cutbanks cave	0.10	Stones or boulders on surface	0.53
				Slope	0.04	Slope	0.04
Tunbridge, very bouldery	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to bedrock	0.97
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
		Slope	0.04	Slope	0.04	Slope	0.04
						Droughty	0.02
741D:							
Potsdam, very bouldery	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Dense layer	0.50	Depth to pan	0.64
				Cutbanks cave	0.10	Stones or boulders on surface	0.53
Tunbridge, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.97	Too steep	1.00	Depth to bedrock	0.97
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
						Droughty	0.02

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
743C:							
Potsdam, very bouldery	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Dense layer	0.50	Depth to pan	0.64
		Slope	0.04	Cutbanks cave	0.10	Stones or boulders on surface	0.53
				Slope	0.04	Slope	0.04
743D:							
Potsdam, very bouldery	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Dense layer	0.50	Depth to pan	0.64
				Cutbanks cave	0.10	Stones or boulders on surface	0.53
745C:							
Crary, very bouldery	40	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to pan	0.84
		Depth to saturated zone	0.75	Dense layer	0.50	Depth to saturated zone	0.75
		Slope	0.04	Cutbanks cave	0.10	Stones or boulders on surface	0.53
				Slope	0.04	Slope	0.04
Potsdam, very bouldery	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Dense layer	0.50	Depth to pan	0.64
		Slope	0.16	Slope	0.16	Stones or boulders on surface	0.53
				Cutbanks cave	0.10	Slope	0.16
747B:							
Crary, very bouldery	45	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to pan	0.84
		Depth to saturated zone	0.75	Dense layer	0.50	Depth to saturated zone	0.75
				Cutbanks cave	0.10	Stones or boulders on surface	0.53
Adirondack, very bouldery	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to pan	0.79
						Stones or boulders on surface	0.53

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
831C:							
Tunbridge, very bouldery-----------	50	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to bedrock	0.97
		Frost action	0.50	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Cutbanks cave	0.10	Slope	0.16
						Droughty	0.02
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Slope	0.04	Stones or boulders on surface	0.53
		Slope	0.04			Droughty	0.46
						Slope	0.04
831D:							
Tunbridge, very bouldery-----------	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.97	Too steep	1.00	Depth to bedrock	0.97
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
						Droughty	0.02
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.53
						Droughty	0.46
831F:							
Tunbridge, very bouldery-----------	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.97	Too steep	1.00	Depth to bedrock	0.97
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
						Droughty	0.02
Lyman, very bouldery	35	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.53
						Droughty	0.46

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
833C:							
Tunbridge, very bouldery	45	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to bedrock	0.97
		Frost action	0.50	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Cutbanks cave	0.10	Slope	0.16
						Droughty	0.02
Adirondack, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to pan	0.79
						Stones or boulders on surface	0.53
Lyman, very bouldery	15	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Slope	0.04	Stones or boulders on surface	0.53
		Slope	0.04			Droughty	0.46
						Slope	0.04
836C:							
Tunbridge, very bouldery	45	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to bedrock	0.97
		Frost action	0.50	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Cutbanks cave	0.10	Slope	0.16
						Droughty	0.02
Wonsqueak	20	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Organic matter content	1.00		
		Subsidence	1.00	Cutbanks cave	0.10		
Knob Lock, very bouldery	15	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.53
						Droughty	0.08
						Slope	0.04

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
851C:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Slope	0.04	Stones or boulders on surface	0.53
		Slope	0.04			Droughty	0.46
						Slope	0.04
Knob Lock, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.53
						Droughty	0.08
						Slope	0.04
851D:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.53
						Droughty	0.46
Knob Lock, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.08
851F:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.53
						Droughty	0.46
Knob Lock, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
						Stones or boulders on surface	0.53
						Droughty	0.08

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
931D:							
Mundalite, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Depth to pan	0.71
				Depth to saturated zone	0.94	Stones or boulders on surface	0.53
				Dense layer	0.50		
Rawsonville, very bouldery	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.71	Too steep	1.00	Depth to bedrock	0.71
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
931F:							
Mundalite, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Depth to pan	0.71
				Depth to saturated zone	0.94	Stones or boulders on surface	0.53
				Dense layer	0.50		
Rawsonville, very bouldery	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.71	Too steep	1.00	Depth to bedrock	0.71
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
941C:							
Rawsonville, very bouldery	50	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.71	Depth to hard bedrock	1.00	Depth to bedrock	0.71
		Frost action	0.50	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Cutbanks cave	0.10	Slope	0.16
Hogback, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16			Slope	0.16
						Droughty	0.01

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
941D:							
Rawsonville, very bouldery	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.71	Too steep	1.00	Depth to bedrock	0.71
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
Hogback, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.53
						Droughty	0.01
941F:							
Rawsonville, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.71	Too steep	1.00	Depth to bedrock	0.71
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
Hogback, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.53
						Droughty	0.01
1018B:							
Colton	75	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.97
1018C:							
Colton	75	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.16	Cutbanks cave	1.00	Droughty	0.97
				Slope	0.16	Slope	0.16
1018D:							
Colton	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.97
1022A:							
Croghan	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.56	Depth to saturated zone	1.00	Depth to saturated zone	0.56
				Cutbanks cave	1.00	Droughty	0.30

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
1023A:							
Naumburg	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.29
1024A:							
Searsport	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00		
1025A:							
Adams	85	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.09
1025B:							
Adams	85	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.09
1025C:							
Adams	85	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.16	Cutbanks cave	1.00	Slope	0.16
				Slope	0.16	Droughty	0.09
1025E:							
Adams	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.09
1025F:							
Adams	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.09
1027B:							
Allagash	75	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
1027C:							
Allagash	80	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Slope	0.16
		Slope	0.16	Slope	0.16		
1027E:							
Allagash	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00		
1070B:							
Berkshire, very bouldery	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
1070C:							
Berkshire, very bouldery	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Cutbanks cave	0.10	Slope	0.16
1070E:							
Berkshire, very bouldery	70	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
1075B:							
Potsdam, very bouldery	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Dense layer	0.50	Depth to pan	0.64
				Cutbanks cave	0.10	Stones or boulders on surface	0.53
1075C:							
Potsdam, very bouldery	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Dense layer	0.50	Depth to pan	0.64
		Slope	0.16	Slope	0.16	Stones or boulders on surface	0.53
				Cutbanks cave	0.10	Slope	0.16
1078B:							
Crary, very bouldery	80	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to pan	0.84
		Depth to saturated zone	0.75	Dense layer	0.50	Depth to saturated zone	0.75
				Cutbanks cave	0.10	Stones or boulders on surface	0.53
1080B:							
Becket, very bouldery	80	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to pan	0.79
		Depth to saturated zone	0.10	Cutbanks cave	1.00	Stones or boulders on surface	0.53
						Depth to saturated zone	0.10

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
1080C:							
Becket, very bouldery-----------	80	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to pan	0.79
		Slope	0.16	Cutbanks cave	1.00	Stones or boulders on surface	0.53
		Depth to saturated zone	0.10	Slope	0.16	Slope	0.16
						Depth to saturated zone	0.10
1080E:							
Becket, very bouldery-----------	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to saturated zone	1.00	Depth to pan	0.79
		Depth to saturated zone	0.10	Cutbanks cave	1.00	Stones or boulders on surface	0.53
						Depth to saturated zone	0.10
1081B:							
Skerry, very bouldery-----------	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Frost action	0.50	Cutbanks cave	1.00	Depth to pan	0.54
						Stones or boulders on surface	0.53
1081C:							
Skerry, very bouldery-----------	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Slope	0.63	Cutbanks cave	1.00	Slope	0.63
		Frost action	0.50	Slope	0.63	Depth to pan	0.54
						Stones or boulders on surface	0.53
1091C:							
Lyman, very bouldery	35	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Slope	0.04	Stones or boulders on surface	0.53
		Slope	0.04			Droughty	0.46
						Slope	0.04

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
Becket, very bouldery	30	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to pan	0.79
		Slope	0.16	Cutbanks cave	1.00	Stones or boulders on surface	0.53
		Depth to saturated zone	0.10	Slope	0.16	Slope	0.16
						Depth to saturated zone	0.10
Tunbridge, very bouldery	20	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to bedrock	0.97
		Frost action	0.50	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16			Slope	0.16
						Droughty	0.02
1091E:							
Lyman, very bouldery	35	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.53
						Droughty	0.46
Becket, very bouldery	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to saturated zone	1.00	Depth to pan	0.79
		Depth to saturated zone	0.10	Cutbanks cave	1.00	Stones or boulders on surface	0.53
						Depth to saturated zone	0.10
Tunbridge, very bouldery	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.97	Too steep	1.00	Depth to bedrock	0.97
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
						Droughty	0.02
1118C:							
Adams	55	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.16	Cutbanks cave	1.00	Slope	0.16
				Slope	0.16	Droughty	0.09
Colton	30	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.16	Cutbanks cave	1.00	Droughty	0.97
				Slope	0.16	Slope	0.16

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
1118D:							
Adams	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.09
Colton	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
				Cutbanks cave	1.00	Droughty	0.97
1170B:							
Henniker	75	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Depth to pan	0.35
				Depth to saturated zone	0.99		
1170C:							
Henniker	80	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Slope	0.63
		Frost action	0.50	Depth to saturated zone	0.99	Depth to pan	0.35
				Slope	0.63		
1170E:							
Henniker	85	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Depth to pan	0.35
				Depth to saturated zone	0.99		
1171B:							
Metacomet	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Frost action	0.50	Cutbanks cave	1.00	Depth to pan	0.35
						Droughty	0.01
1171C:							
Metacomet	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Frost action	0.50	Cutbanks cave	1.00	Depth to pan	0.35
		Slope	0.16	Slope	0.16	Slope	0.16
						Droughty	0.01
1172B:							
Pillsbury, somewhat poorly drained	75	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.83
		Depth to saturated zone	0.83	Dense layer	0.50	Depth to pan	0.20
				Cutbanks cave	0.10	Large stones	0.01
1178A:							
Adirondack, very bouldery	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to pan	0.79
						Stones or boulders on surface	0.53

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1178B:							
Adirondack, very bouldery	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to pan	0.79
						Stones or boulders on surface	0.53
1185A:							
Wonsqueak, undrained	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Organic matter content	1.00		
		Subsidence	1.00	Cutbanks cave	0.10		
1190C:							
Tunbridge, very bouldery	50	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to bedrock	0.97
		Frost action	0.50	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Cutbanks cave	0.10	Slope	0.16
						Droughty	0.02
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Slope	0.04	Stones or boulders on surface	0.53
		Slope	0.04			Droughty	0.46
						Slope	0.04
1190E:							
Tunbridge, very bouldery	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.97	Too steep	1.00	Depth to bedrock	0.97
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
						Droughty	0.02
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.53
						Droughty	0.46

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
1190F:							
Tunbridge, very bouldery	45	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.97	Too steep	1.00	Depth to bedrock	0.97
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
						Droughty	0.02
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.53
						Droughty	0.46
1193A:							
Wonsqueak	60	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Organic matter content	1.00		
		Subsidence	1.00	Cutbanks cave	0.10		
Humaquepts, frequently flooded	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		
1291C:							
Becket, very bouldery	35	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to pan	0.79
		Slope	0.16	Cutbanks cave	1.00	Stones or boulders on surface	0.53
		Depth to saturated zone	0.10	Slope	0.16	Slope	0.16
						Depth to saturated zone	0.10
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Slope	0.04	Stones or boulders on surface	0.53
		Slope	0.04			Droughty	0.46
						Slope	0.04

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
Tunbridge, very bouldery	20	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to bedrock	0.97
		Frost action	0.50	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Cutbanks cave	0.10	Slope	0.16
						Droughty	0.02
1291D:							
Becket, very bouldery	40	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to saturated zone	1.00	Depth to pan	0.79
		Depth to saturated zone	0.10	Cutbanks cave	1.00	Stones or boulders on surface	0.53
						Depth to saturated zone	0.10
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.53
						Droughty	0.46
Tunbridge, very bouldery	20	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.97	Too steep	1.00	Depth to bedrock	0.97
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
						Droughty	0.02
1292C:							
Becket, very bouldery	50	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to pan	0.79
		Slope	0.16	Cutbanks cave	1.00	Stones or boulders on surface	0.53
		Depth to saturated zone	0.10	Slope	0.16	Slope	0.16
						Depth to saturated zone	0.10

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
Tunbridge, very bouldery-----------	25	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to bedrock	0.97
		Frost action	0.50	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Cutbanks cave	0.10	Slope	0.16
						Droughty	0.02
1292E:							
Becket, very bouldery-----------	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to saturated zone	1.00	Depth to pan	0.79
		Depth to saturated zone	0.10	Cutbanks cave	1.00	Stones or boulders on surface	0.53
						Depth to saturated zone	0.10
Tunbridge, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.97	Too steep	1.00	Depth to bedrock	0.97
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
						Droughty	0.02
1292F:							
Becket, very bouldery-----------	55	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Depth to saturated zone	1.00	Depth to pan	0.79
		Depth to saturated zone	0.10	Cutbanks cave	1.00	Stones or boulders on surface	0.53
						Depth to saturated zone	0.10
Tunbridge, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.97	Too steep	1.00	Depth to bedrock	0.97
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
						Droughty	0.02

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
1293C:							
Skerry, very bouldery	55	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Frost action	0.50	Cutbanks cave	1.00	Depth to pan	0.54
		Slope	0.04	Slope	0.04	Stones or boulders on surface	0.53
						Slope	0.04
Tunbridge, very bouldery	25	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to bedrock	0.97
		Frost action	0.50	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Cutbanks cave	0.10	Slope	0.16
						Droughty	0.02
1380C:							
Becket, very bouldery	45	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Depth to saturated zone	1.00	Depth to pan	0.79
		Frost action	0.50	Cutbanks cave	1.00	Slope	0.63
		Depth to saturated zone	0.10	Slope	0.63	Stones or boulders on surface	0.53
						Depth to saturated zone	0.10
Skerry, very bouldery	40	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Frost action	0.50	Cutbanks cave	1.00	Depth to pan	0.54
		Slope	0.01	Slope	0.01	Stones or boulders on surface	0.53
						Slope	0.01
1391C:							
Lyman, very bouldery	40	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Slope	0.04	Stones or boulders on surface	0.53
		Slope	0.04			Droughty	0.46
						Slope	0.04
Tunbridge, very bouldery	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.97	Depth to hard bedrock	1.00	Depth to bedrock	0.97
		Frost action	0.50	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16	Cutbanks cave	0.10	Slope	0.16
						Droughty	0.02

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
Rock outcrop--------	15	Not rated		Not rated		Not rated	
1391D:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.53
						Droughty	0.46
Tunbridge, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Depth to hard bedrock	0.97	Too steep	1.00	Depth to bedrock	0.97
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53
						Droughty	0.02
Rock outcrop--------	15	Not rated		Not rated		Not rated	
1580B:							
Adirondack, very bouldery-----------	50	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to pan	0.79
						Stones or boulders on surface	0.53
Skerry, very bouldery-----------	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Frost action	0.50	Cutbanks cave	1.00	Depth to pan	0.54
						Stones or boulders on surface	0.53
1591F:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.53
						Droughty	0.46
Berkshire, very bouldery-----------	35	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	0.10	Stones or boulders on surface	0.53

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
1911C:							
Potsdam, very bouldery	60	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Depth to pan	0.64
		Frost action	0.50	Dense layer	0.50	Slope	0.63
				Cutbanks cave	0.10	Stones or boulders on surface	0.53
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Slope	0.16	Stones or boulders on surface	0.53
		Slope	0.16			Droughty	0.46
						Slope	0.16
1911E:							
Potsdam, very bouldery	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Dense layer	0.50	Depth to pan	0.64
				Cutbanks cave	0.10	Stones or boulders on surface	0.53
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Too steep	1.00
		Too steep	1.00	Too steep	1.00	Depth to bedrock	1.00
		Frost action	0.50			Stones or boulders on surface	0.53
						Droughty	0.46
1920B:							
Monadnock, very bouldery	75	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.53
1920C:							
Monadnock, very bouldery	80	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.53
		Slope	0.16	Slope	0.16	Slope	0.16
1920E:							
Monadnock, very bouldery	80	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.53

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
1941A:							
Sabattis, very bouldery-----------	75	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10	Stones or boulders on surface	0.53
						Large stones	0.01
2170B:							
Henniker, very stony	75	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.53
				Depth to saturated zone	0.99	Depth to pan	0.35
2170C:							
Henniker, very stony	80	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Slope	0.63
		Frost action	0.50	Depth to saturated zone	0.99	Stones or boulders on surface	0.53
				Slope	0.63	Depth to pan	0.35
2170E:							
Henniker, very stony	75	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Too steep	1.00
		Frost action	0.50	Cutbanks cave	1.00	Stones or boulders on surface	0.53
				Depth to saturated zone	0.99	Depth to pan	0.35
2171B:							
Metacomet, very stony--------------	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Frost action	0.50	Cutbanks cave	1.00	Depth to pan	0.35
						Stones or boulders on surface	0.19
						Droughty	0.01
2171C:							
Metacomet, very stony--------------	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Slope	0.63	Cutbanks cave	1.00	Slope	0.63
		Frost action	0.50	Slope	0.63	Depth to pan	0.35
						Stones or boulders on surface	0.19
						Droughty	0.01

Table 14.—Roads and Streets, Shallow Excavations, and Lawns and Landscaping—Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
2172B:							
Pillsbury, very stony	75	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.83
		Depth to saturated zone	0.83	Dense layer	0.50	Depth to pan	0.20
				Cutbanks cave	0.10	Stones or boulders on surface	0.19
						Large stones	0.08
DeB:							
Deerfield	75	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Droughty	0.67
		Depth to saturated zone	0.08	Cutbanks cave	1.00	Depth to saturated zone	0.08
GP:							
Pits, sand and gravel	80	Not limited		Very limited		Very limited	
				Cutbanks cave	1.00	Droughty	1.00
						Gravel	1.00
						Too sandy	0.50

Table 15.—Septic Tank Absorption Fields

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
3A:			
Endoaquolls, frequently flooded	55	Very limited	
		Flooding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
Hapludolls, frequently flooded	30	Very limited	
		Flooding	1.00
		Seepage	0.90
		Depth to saturated zone	0.80
4C:			
Udorthents, smoothed	75	Not rated	
5C:			
Udorthents, refuse substratum	70	Not rated	
6A:			
Saprists, frequently ponded	40	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
Aquents, frequently ponded	35	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Restricted permeability	0.91
7B:			
Endoaquents, smoothed	75	Very limited	
		Depth to saturated zone	1.00
		Flooding	0.40
		Restricted permeability	0.19
10A:			
Pleasant Lake	45	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
Burnt Vly-----------	35	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
11B:			
Hinckley------------	40	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
Windsor-------------	35	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
11C:			
Hinckley------------	40	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
Windsor-------------	35	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
11D:			
Hinckley------------	40	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
Windsor-------------	40	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
11E:			
Hinckley------------	45	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
Windsor-------------	40	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
13F:			
Lansing	50	Very limited	
		Slope	1.00
		Restricted permeability	0.31
		Depth to dense material	0.22
Mohawk	30	Very limited	
		Slope	1.00
		Restricted permeability	0.31
		Depth to dense material	0.22
16E:			
Broadalbin	75	Very limited	
		Slope	1.00
		Depth to dense material	0.80
		Restricted permeability	0.31
17D:			
Hollis	60	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
Rock outcrop	15	Not rated	
18C:			
Chatfield	50	Somewhat limited	
		Depth to bedrock	0.75
		Slope	0.20
Hollis	30	Very limited	
		Depth to bedrock	1.00
		Slope	0.20
18D:			
Chatfield	50	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
Hollis	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
21B:			
Galway	75	Somewhat limited	
		Depth to bedrock	0.75
		Restricted permeability	0.31
21C:			
Galway	75	Somewhat limited	
		Depth to bedrock	0.75
		Restricted permeability	0.31
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
22B:			
Georgia	75	Somewhat limited	
		Depth to saturated zone	0.80
		Restricted permeability	0.31
		Depth to dense material	0.11
24B:			
Farmington	75	Very limited	
		Depth to bedrock	1.00
		Restricted permeability	0.31
24C:			
Farmington	75	Very limited	
		Depth to bedrock	1.00
		Restricted permeability	0.31
		Slope	0.20
25A:			
Wonsqueak, ponded	35	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Restricted permeability	0.03
Colton	25	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
Rumney	20	Very limited	
		Flooding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
		Restricted permeability	0.60
25D:			
Farmington, very rocky	70	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Restricted permeability	0.31
32B:			
Mohawk	75	Somewhat limited	
		Restricted permeability	0.31
		Depth to dense material	0.22

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
32C:			
Mohawk	75	Somewhat limited	
		Restricted permeability	0.31
		Depth to dense material	0.22
		Slope	0.20
32D:			
Mohawk	75	Very limited	
		Slope	1.00
		Restricted permeability	0.31
		Depth to dense material	0.22
33B:			
Angola	75	Very limited	
		Restricted permeability	1.00
		Depth to saturated zone	1.00
		Depth to bedrock	0.75
34A:			
Manheim	80	Very limited	
		Depth to saturated zone	1.00
		Restricted permeability	0.98
34B:			
Manheim	80	Very limited	
		Depth to saturated zone	1.00
		Restricted permeability	0.98
42B:			
Lansing	75	Somewhat limited	
		Restricted permeability	0.31
		Depth to dense material	0.22
42C:			
Lansing	80	Somewhat limited	
		Restricted permeability	0.31
		Depth to dense material	0.22
		Slope	0.20
42D:			
Lansing	80	Very limited	
		Slope	1.00
		Restricted permeability	0.31
		Depth to dense material	0.22

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
44A:			
Appleton	80	Very limited	
		Depth to saturated zone	1.00
		Restricted permeability	0.99
44B:			
Appleton	80	Very limited	
		Depth to saturated zone	1.00
		Restricted permeability	0.99
47A:			
Ilion	80	Very limited	
		Depth to saturated zone	1.00
		Restricted permeability	0.92
47B:			
Ilion	80	Very limited	
		Depth to saturated zone	1.00
		Restricted permeability	0.92
49A:			
Fonda	75	Very limited	
		Restricted permeability	1.00
		Ponding	1.00
		Depth to saturated zone	1.00
72B:			
Broadalbin, well drained	50	Somewhat limited	
		Depth to dense material	0.80
		Restricted permeability	0.31
Broadalbin, moderately well drained	30	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.80
		Restricted permeability	0.31
72C:			
Broadalbin	75	Somewhat limited	
		Depth to dense material	0.80
		Restricted permeability	0.31
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
72D:			
Broadalbin	75	Very limited	
		Slope	1.00
		Depth to dense material	0.80
		Restricted permeability	0.31
74A:			
Mosherville	80	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.92
		Restricted permeability	0.31
74B:			
Mosherville	75	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.92
		Restricted permeability	0.31
77A:			
Sun	75	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.75
		Restricted permeability	0.31
81B:			
Charlton	80	Not limited	
81C:			
Charlton	80	Somewhat limited	
		Slope	0.20
81D:			
Charlton	80	Very limited	
		Slope	1.00
89A:			
Whitman	75	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Depth to dense material	0.95
		Restricted permeability	0.45
90B:			
Palatine	75	Somewhat limited	
		Depth to bedrock	0.75
		Restricted permeability	0.31

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
90C:			
Palatine	80	Somewhat limited	
		Depth to bedrock	0.75
		Restricted permeability	0.31
		Slope	0.20
90D:			
Palatine	85	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Restricted permeability	0.31
94B:			
Paxton	75	Somewhat limited	
		Depth to dense material	0.75
		Restricted permeability	0.31
		Depth to saturated zone	0.24
94C:			
Paxton	80	Somewhat limited	
		Depth to dense material	0.75
		Restricted permeability	0.31
		Depth to saturated zone	0.24
		Slope	0.20
94D:			
Paxton	85	Very limited	
		Slope	1.00
		Depth to dense material	0.75
		Restricted permeability	0.31
		Depth to saturated zone	0.24
95B:			
Woodbridge	75	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Restricted permeability	0.31
96B:			
Ridgebury	80	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.75
		Restricted permeability	0.31

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
99A:			
Timakwa, undrained	75	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
109A:			
Catden, undrained	75	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
112A:			
Scio	45	Somewhat limited	
		Restricted permeability	0.83
		Depth to saturated zone	0.80
Urban land	40	Not rated	
114B:			
Windsor	60	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
Urban land	30	Not rated	
114C:			
Windsor	60	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
Urban land	30	Not rated	
114D:			
Windsor	60	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
Urban land	30	Not rated	
115B:			
Udipsamments, smoothed	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
116:			
Urban land	90	Not rated	

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
117B:			
Broadalbin, moderately well drained	50	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.80
		Restricted permeability	0.31
Urban land	30	Not rated	
117C:			
Broadalbin, well drained	45	Somewhat limited	
		Depth to dense material	0.80
		Restricted permeability	0.31
		Slope	0.20
Urban land	30	Not rated	
130B:			
Hudson	75	Somewhat limited	
		Restricted permeability	0.98
		Depth to saturated zone	0.80
130C:			
Hudson	80	Somewhat limited	
		Restricted permeability	0.98
		Depth to saturated zone	0.80
		Slope	0.20
134A:			
Rhinebeck	75	Very limited	
		Restricted permeability	1.00
		Depth to saturated zone	1.00
134B:			
Rhinebeck	75	Very limited	
		Restricted permeability	1.00
		Depth to saturated zone	1.00
135A:			
Churchville	80	Very limited	
		Restricted permeability	1.00
		Depth to saturated zone	1.00

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
135B:			
Churchville	75	Very limited	
		Restricted permeability	1.00
		Depth to saturated zone	1.00
137A:			
Madalin	75	Very limited	
		Restricted permeability	1.00
		Depth to saturated zone	1.00
151B:			
Unadilla	80	Somewhat limited	
		Restricted permeability	0.31
152A:			
Scio	80	Somewhat limited	
		Restricted permeability	0.83
		Depth to saturated zone	0.80
152B:			
Scio	80	Somewhat limited	
		Restricted permeability	0.83
		Depth to saturated zone	0.80
154A:			
Tonawanda	80	Very limited	
		Depth to saturated zone	1.00
		Restricted permeability	0.49
154B:			
Tonawanda	80	Very limited	
		Depth to saturated zone	1.00
		Restricted permeability	0.49
157A:			
Birdsall	75	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Restricted permeability	0.98
160A:			
Agawam	75	Somewhat limited	
		Seepage	0.90

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
160B:			
Agawam	75	Somewhat limited	
		Seepage	0.90
162B:			
Ninigret	75	Somewhat limited	
		Seepage	0.90
		Depth to saturated zone	0.80
		Restricted permeability	0.45
165A:			
Stafford	80	Very limited	
		Depth to saturated zone	1.00
		Filtering capacity	1.00
		Seepage	1.00
170B:			
Windsor	75	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
170C:			
Windsor	80	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
170D:			
Windsor	80	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
179A:			
Scarboro	75	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Filtering capacity	1.00
		Seepage	1.00
182A:			
Elmridge	75	Somewhat limited	
		Depth to saturated zone	0.80
182B:			
Elmridge	75	Somewhat limited	
		Depth to saturated zone	0.80

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
187A:			
Aeric Epiaquepts, somewhat poorly drained	50	Very limited	
		Depth to saturated zone	1.00
Aeric Epiaquepts, poorly drained	30	Very limited	
		Depth to saturated zone	1.00
189A:			
Cheektowaga	75	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Filtering capacity	1.00
197A:			
Fredon, somewhat poorly drained	75	Very limited	
		Depth to saturated zone	1.00
		Seepage	0.90
		Restricted permeability	0.31
201B:			
Alton	80	Somewhat limited	
		Seepage	0.90
201C:			
Alton	80	Somewhat limited	
		Seepage	0.90
		Slope	0.20
201D:			
Alton	80	Very limited	
		Slope	1.00
		Seepage	0.90
210A:			
Merrimac	75	Somewhat limited	
		Seepage	0.90
210B:			
Merrimac	75	Somewhat limited	
		Seepage	0.90
210C:			
Merrimac	75	Somewhat limited	
		Seepage	0.90
		Slope	0.20
210D:			
Merrimac	75	Very limited	
		Slope	1.00
		Seepage	0.90

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
211A:			
Burnt Vly	35	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
Humaquepts	25	Very limited	
		Flooding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
		Restricted permeability	0.73
Pleasant Lake	20	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
212A:			
Hinckley	80	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
212B:			
Hinckley	80	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
212C:			
Hinckley	80	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
232A:			
Teel	75	Very limited	
		Flooding	1.00
		Depth to saturated zone	0.80
		Restricted permeability	0.31
244A:			
Darien	75	Very limited	
		Depth to saturated zone	1.00
		Restricted permeability	0.98
244B:			
Darien	75	Very limited	
		Depth to saturated zone	1.00
		Restricted permeability	0.98

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
363A:			
Adams	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
363B:			
Adams	80	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
363D:			
Adams	80	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
363F:			
Adams	75	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
365A:			
Naumburg	45	Very limited	
		Depth to saturated zone	1.00
		Filtering capacity	1.00
		Seepage	1.00
Croghan	35	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Depth to saturated zone	0.80
368A:			
Searsport	35	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Filtering capacity	1.00
		Seepage	1.00
Wonsqueak	25	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Restricted permeability	0.03

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
Naumburg	20	Very limited	
		Depth to saturated zone	1.00
		Filtering capacity	1.00
		Seepage	1.00
375A:			
Colton	45	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
Adams	40	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
375C:			
Colton	45	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
Adams	40	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
375D:			
Colton	45	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
Adams	35	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
650C:			
Monadnock, very bouldery	35	Somewhat limited	
		Restricted permeability	0.31
		Surface rock fragments	0.30
		Slope	0.20
Adams	30	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
Colton--------------	20	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
650D:			
Monadnock, very bouldery-----------	40	Very limited	
		Slope	1.00
		Restricted permeability	0.31
		Surface rock fragments	0.30
Adams---------------	30	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
Colton--------------	20	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
651C:			
Monadnock, very bouldery-----------	40	Somewhat limited	
		Restricted permeability	0.31
		Surface rock fragments	0.30
		Slope	0.20
Tunbridge, rolling, very bouldery------	25	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
Sabattis, very bouldery-----------	15	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
651D:			
Monadnock, very bouldery	45	Very limited	
		Slope	1.00
		Restricted permeability	0.31
		Surface rock fragments	0.30
Tunbridge, hilly, very bouldery	35	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
651F:			
Monadnock, very bouldery	50	Very limited	
		Slope	1.00
		Restricted permeability	0.31
		Surface rock fragments	0.30
Tunbridge, very bouldery	35	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
653C:			
Monadnock, very bouldery	80	Somewhat limited	
		Restricted permeability	0.31
		Surface rock fragments	0.30
		Slope	0.20
653D:			
Monadnock, very bouldery	80	Very limited	
		Slope	1.00
		Restricted permeability	0.31
		Surface rock fragments	0.30

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
708B:			
Adirondack, very bouldery	35	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.88
		Surface rock fragments	0.60
		Restricted permeability	0.31
Sabattis, very bouldery	30	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
Tughill, very bouldery	20	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Restricted permeability	0.65
		Surface rock fragments	0.60
		Content of large stones	0.02
711C:			
Adirondack, very bouldery	40	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.88
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
Tunbridge, very bouldery	30	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
Burnt Vly	15	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
721C:			
Becket, very bouldery-----------	40	Somewhat limited	
		Depth to dense material	0.75
		Restricted permeability	0.73
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Slope	0.20
Tunbridge, very bouldery-----------	25	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
Skerry, very bouldery-----------	20	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
721D:			
Becket, very bouldery-----------	50	Very limited	
		Slope	1.00
		Depth to dense material	0.75
		Restricted permeability	0.73
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
Tunbridge, very bouldery-----------	30	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
721F:			
Becket, very bouldery	50	Very limited	
		Slope	1.00
		Depth to dense material	0.75
		Restricted permeability	0.73
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
Tunbridge, very bouldery	35	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
723C:			
Becket, very bouldery	80	Somewhat limited	
		Depth to dense material	0.75
		Restricted permeability	0.73
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Slope	0.20
723D:			
Becket, very bouldery	85	Very limited	
		Slope	1.00
		Depth to dense material	0.75
		Restricted permeability	0.73
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
725B:			
Skerry, very bouldery	55	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
Becket, very bouldery	30	Somewhat limited	
		Depth to dense material	0.75
		Restricted permeability	0.73
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Slope	0.20
727B:			
Skerry, very bouldery	45	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
Adirondack, very bouldery	35	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.88
		Surface rock fragments	0.60
		Restricted permeability	0.31
741C:			
Potsdam, very bouldery	50	Somewhat limited	
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
Tunbridge, very bouldery	30	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
741D:			
Potsdam, very bouldery	50	Very limited	
		Slope	1.00
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
Tunbridge, very bouldery	30	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
743C:			
Potsdam, very bouldery	80	Somewhat limited	
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
743D:			
Potsdam, very bouldery	80	Very limited	
		Slope	1.00
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
745C:			
Crary, very bouldery	40	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Restricted permeability	0.67
		Surface rock fragments	0.60
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
Potsdam, very bouldery	35	Somewhat limited	
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
747B:			
Crary, very bouldery	45	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Restricted permeability	0.67
		Surface rock fragments	0.60
Adirondack, very bouldery	35	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.88
		Surface rock fragments	0.60
		Restricted permeability	0.31
831C:			
Tunbridge, very bouldery	50	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
Lyman, very bouldery	25	Very limited	
		Depth to bedrock	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
		Slope	0.20
831D:			
Tunbridge, very bouldery	50	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
Lyman, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
831F:			
Tunbridge, very bouldery-----------	45	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
Lyman, very bouldery	35	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
833C:			
Tunbridge, very bouldery-----------	45	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
Adirondack, very bouldery-----------	25	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.88
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
Lyman, very bouldery	15	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
836C:			
Tunbridge, very bouldery	45	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
Wonsqueak	20	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Restricted permeability	0.03
Knob Lock, very bouldery	15	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
851C:			
Lyman, very bouldery	45	Very limited	
		Depth to bedrock	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
		Slope	0.20
Knob Lock, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Surface rock fragments	0.60
		Slope	0.20
851D:			
Lyman, very bouldery	45	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
Knob Lock, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
851F:			
Lyman, very bouldery	45	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
Knob Lock, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
931D:			
Mundalite, very bouldery	45	Very limited	
		Slope	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
		Depth to dense material	0.31
		Depth to saturated zone	0.25
Rawsonville, very bouldery	35	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
931F:			
Mundalite, very bouldery	45	Very limited	
		Slope	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
		Depth to dense material	0.31
		Depth to saturated zone	0.25
Rawsonville, very bouldery	35	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
941C:			
Rawsonville, very bouldery	50	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Slope	0.20
Hogback, very bouldery	25	Very limited	
		Depth to bedrock	1.00
		Surface rock fragments	0.60
		Slope	0.20
941D:			
Rawsonville, very bouldery	50	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
Hogback, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
941F:			
Rawsonville, very bouldery	45	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
Hogback, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
1018B:			
Colton	75	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
1018C:			
Colton	75	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
1018D:			
Colton	80	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
1022A:			
Croghan	80	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Depth to saturated zone	0.80
1023A:			
Naumburg	80	Very limited	
		Depth to saturated zone	1.00
		Filtering capacity	1.00
		Seepage	1.00
1024A:			
Searsport	75	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Filtering capacity	1.00
		Seepage	1.00
1025A:			
Adams	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
1025B:			
Adams	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
1025C:			
Adams	85	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
1025E:			
Adams	80	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
1025F:			
Adams	80	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
1027B:			
Allagash	75	Somewhat limited	
		Seepage	0.90
		Restricted permeability	0.19
1027C:			
Allagash	80	Somewhat limited	
		Seepage	0.90
		Slope	0.20
		Restricted permeability	0.19
1027E:			
Allagash	80	Very limited	
		Slope	1.00
		Seepage	0.90
		Restricted permeability	0.19
1070B:			
Berkshire, very bouldery	75	Somewhat limited	
		Surface rock fragments	0.30
1070C:			
Berkshire, very bouldery	70	Somewhat limited	
		Surface rock fragments	0.30
		Slope	0.20
1070E:			
Berkshire, very bouldery	70	Very limited	
		Slope	1.00
		Surface rock fragments	0.30
1075B:			
Potsdam, very bouldery	80	Somewhat limited	
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
1075C:			
Potsdam, very bouldery-----------	80	Somewhat limited	
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
1078B:			
Crary, very bouldery	80	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Restricted permeability	0.67
		Surface rock fragments	0.60
1080B:			
Becket, very bouldery-----------	80	Somewhat limited	
		Depth to dense material	0.75
		Restricted permeability	0.73
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
1080C:			
Becket, very bouldery-----------	80	Somewhat limited	
		Depth to dense material	0.75
		Restricted permeability	0.73
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Slope	0.20
1080E:			
Becket, very bouldery-----------	85	Very limited	
		Slope	1.00
		Depth to dense material	0.75
		Restricted permeability	0.73
		Surface rock fragments	0.60
		Depth to saturated zone	0.33

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
1081B:			
Skerry, very bouldery	80	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
1081C:			
Skerry, very bouldery	80	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
1091C:			
Lyman, very bouldery	35	Very limited	
		Depth to bedrock	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
		Slope	0.20
Becket, very bouldery	30	Somewhat limited	
		Depth to dense material	0.75
		Restricted permeability	0.73
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Slope	0.20
Tunbridge, very bouldery	20	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
1091E:			
Lyman, very bouldery	35	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
Becket, very bouldery	30	Very limited	
		Slope	1.00
		Depth to dense material	0.75
		Restricted permeability	0.73
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
Tunbridge, very bouldery	20	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
1118C:			
Adams	55	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
Colton	30	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Slope	0.20
1118D:			
Adams	50	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00
Colton	35	Very limited	
		Filtering capacity	1.00
		Slope	1.00
		Seepage	1.00

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
1170B:			
Henniker	75	Somewhat limited	
		Depth to dense material	0.75
		Restricted permeability	0.28
		Depth to saturated zone	0.28
1170C:			
Henniker	80	Somewhat limited	
		Depth to dense material	0.75
		Restricted permeability	0.28
		Depth to saturated zone	0.28
		Slope	0.20
1170E:			
Henniker	85	Very limited	
		Slope	1.00
		Depth to dense material	0.75
		Restricted permeability	0.28
		Depth to saturated zone	0.28
1171B:			
Metacomet	80	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Restricted permeability	0.29
1171C:			
Metacomet	80	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Restricted permeability	0.29
		Slope	0.20
1172B:			
Pillsbury, somewhat poorly drained	75	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.75
		Restricted permeability	0.31

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
1178A:			
Adirondack, very bouldery-----------	80	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.88
		Surface rock fragments	0.60
		Restricted permeability	0.31
1178B:			
Adirondack, very bouldery-----------	75	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.88
		Surface rock fragments	0.60
		Restricted permeability	0.31
1185A:			
Wonsqueak, undrained	85	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Restricted permeability	0.03
1190C:			
Tunbridge, very bouldery-----------	50	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
Lyman, very bouldery	25	Very limited	
		Depth to bedrock	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
		Slope	0.20
1190E:			
Tunbridge, very bouldery-----------	50	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
Lyman, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
1190F:			
Tunbridge, very bouldery-----------	45	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
Lyman, very bouldery	30	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
1193A:			
Wonsqueak-----------	60	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Restricted permeability	0.03
Humaquepts, frequently flooded-	30	Very limited	
		Flooding	1.00
		Depth to saturated zone	1.00
		Seepage	0.90
		Restricted permeability	0.73
1291C:			
Becket, very bouldery-----------	35	Somewhat limited	
		Depth to dense material	0.75
		Restricted permeability	0.73
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
Lyman, very bouldery	25	Very limited	
		Depth to bedrock	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
		Slope	0.20
Tunbridge, very bouldery-----------	20	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
1291D:			
Becket, very bouldery-----------	40	Very limited	
		Slope	1.00
		Depth to dense material	0.75
		Restricted permeability	0.73
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
Lyman, very bouldery	25	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
Tunbridge, very bouldery-----------	20	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
1292C:			
Becket, very bouldery-----------	50	Somewhat limited	
		Depth to dense material	0.75
		Restricted permeability	0.73
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
Tunbridge, very bouldery	25	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
1292E:			
Becket, very bouldery	50	Very limited	
		Slope	1.00
		Depth to dense material	0.75
		Restricted permeability	0.73
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
Tunbridge, very bouldery	30	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
1292F:			
Becket, very bouldery	55	Very limited	
		Slope	1.00
		Depth to dense material	0.75
		Restricted permeability	0.73
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
Tunbridge, very bouldery	30	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
1293C:			
Skerry, very bouldery	55	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
Tunbridge, very bouldery	25	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
1380C:			
Becket, very bouldery	45	Somewhat limited	
		Depth to dense material	0.75
		Restricted permeability	0.73
		Surface rock fragments	0.60
		Depth to saturated zone	0.33
		Slope	0.20
Skerry, very bouldery	40	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
1391C:			
Lyman, very bouldery	40	Very limited	
		Depth to bedrock	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
Tunbridge, very bouldery-----------	30	Somewhat limited	
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
Rock outcrop--------	15	Not rated	
1391D:			
Lyman, very bouldery	45	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
Tunbridge, very bouldery-----------	30	Very limited	
		Slope	1.00
		Depth to bedrock	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
Rock outcrop--------	15	Not rated	
1580B:			
Adirondack, very bouldery-----------	50	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.88
		Surface rock fragments	0.60
		Restricted permeability	0.31
Skerry, very bouldery-----------	30	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
1591F:			
Lyman, very bouldery	45	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
Berkshire, very bouldery	35	Very limited	
		Slope	1.00
		Surface rock fragments	0.30
1911C:			
Potsdam, very bouldery	60	Somewhat limited	
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
		Slope	0.20
Lyman, very bouldery	25	Very limited	
		Depth to bedrock	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
		Slope	0.20
1911E:			
Potsdam, very bouldery	60	Very limited	
		Slope	1.00
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
Lyman, very bouldery	25	Very limited	
		Depth to bedrock	1.00
		Slope	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
1920B:			
Monadnock, very bouldery	75	Somewhat limited	
		Restricted permeability	0.31
		Surface rock fragments	0.30
1920C:			
Monadnock, very bouldery	80	Somewhat limited	
		Restricted permeability	0.31
		Surface rock fragments	0.30
		Slope	0.20

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
1920E:			
Monadnock, very bouldery	80	Very limited	
		Slope	1.00
		Restricted permeability	0.31
		Surface rock fragments	0.30
1941A:			
Sabattis, very bouldery	75	Very limited	
		Ponding	1.00
		Depth to saturated zone	1.00
		Surface rock fragments	0.60
		Restricted permeability	0.45
2170B:			
Henniker, very stony	75	Somewhat limited	
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.28
		Depth to saturated zone	0.28
2170C:			
Henniker, very stony	80	Somewhat limited	
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.28
		Depth to saturated zone	0.28
		Slope	0.20
2170E:			
Henniker, very stony	75	Very limited	
		Slope	1.00
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.28
		Depth to saturated zone	0.28

Table 15.—Septic Tank Absorption Fields—Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value
2171B:			
Metacomet, very stony	80	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.29
2171C:			
Metacomet, very stony	80	Somewhat limited	
		Depth to saturated zone	0.80
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.29
		Slope	0.20
2172B:			
Pillsbury, very stony	75	Very limited	
		Depth to saturated zone	1.00
		Depth to dense material	0.75
		Surface rock fragments	0.60
		Restricted permeability	0.31
DeB:			
Deerfield	75	Very limited	
		Filtering capacity	1.00
		Seepage	1.00
		Depth to saturated zone	0.80
GP:			
Pits, sand and gravel	80	Not rated	

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3A:							
Endoaquolls, frequently flooded	55	Fair		Poor		Poor	
		Organic matter content low	0.02	Wetness depth	0.00	Wetness depth	0.00
						Hard to reclaim (rock fragments)	0.00
Hapludolls, frequently flooded	30	Fair		Fair		Poor	
		Organic matter content low	0.02	Wetness depth	0.89	Hard to reclaim (rock fragments)	0.00
		Too sandy	0.22			Too sandy	0.22
		Too acid	0.92			Wetness depth	0.89
4C:							
Udorthents, smoothed	75	Poor		Fair		Fair	
		Organic matter content low	0.00	Wetness depth	0.76	Wetness depth	0.76
						Rock fragments	0.88
5C:							
Udorthents, refuse substratum	70	Not rated		Not rated		Not rated	
6A:							
Saprists, frequently ponded	40	Poor		Poor		Poor	
		Wind erosion	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.32			Organic matter content high	0.00
						Too acid	0.88
Aquents, frequently ponded	35	Fair		Poor		Poor	
		Too acid	0.50	Wetness depth	0.00	Wetness depth	0.00
						Rock fragments	0.88
7B:							
Endoaquents, smoothed	75	Poor		Poor		Poor	
		Organic matter content low	0.00	Wetness depth	0.00	Wetness depth	0.00
		Droughty	0.67			Rock fragments	0.12
		Too acid	0.99				
10A:							
Pleasant Lake	45	Poor		Poor		Poor	
		Wind erosion	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.01			Organic matter content high	0.00
						Too acid	0.76

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
Burnt Vly------------	35	Poor		Poor		Poor	
		Wind erosion	0.00	Wetness depth	0.00	Wetness depth	0.00
		Organic matter content low	0.12			Organic matter content high	0.00
		Too acid	0.50			Too acid	0.59
11B:							
Hinckley------------	40	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.00			Rock fragments	0.00
		Droughty	0.06			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Too acid	0.92
Windsor-------------	35	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.00			Too acid	0.99
		Droughty	0.49				
		Too acid	0.50				
11C:							
Hinckley------------	40	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.00			Rock fragments	0.00
		Droughty	0.06			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Slope	0.37
						Too acid	0.92
Windsor-------------	35	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.00			Slope	0.37
		Droughty	0.49			Too acid	0.99
		Too acid	0.50				
11D:							
Hinckley------------	40	Poor		Fair		Poor	
		Too sandy	0.00	Slope	0.50	Slope	0.00
		Organic matter content low	0.00			Too sandy	0.00
		Droughty	0.06			Rock fragments	0.00
		Too acid	0.50			Hard to reclaim (rock fragments)	0.00
						Too acid	0.92
Windsor-------------	40	Poor		Fair		Poor	
		Too sandy	0.00	Slope	0.50	Slope	0.00
		Organic matter content low	0.00			Too sandy	0.00
		Droughty	0.49			Too acid	0.99
		Too acid	0.50				

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
11E:							
Hinckley	45	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Organic matter content low	0.00			Too sandy	0.00
		Droughty	0.06			Rock fragments	0.00
		Too acid	0.50			Hard to reclaim (rock fragments)	0.00
						Too acid	0.92
Windsor	40	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Organic matter content low	0.00			Too sandy	0.00
		Droughty	0.49			Too acid	0.99
		Too acid	0.50				
13F:							
Lansing	50	Fair		Poor		Poor	
		Organic matter content low	0.50	Slope	0.00	Slope	0.00
		Too acid	0.97			Rock fragments	0.88
						Hard to reclaim (rock fragments)	0.98
Mohawk	30	Good		Poor		Poor	
				Slope	0.00	Slope	0.00
						Rock fragments	0.88
						Hard to reclaim (rock fragments)	0.95
16E:							
Broadalbin	75	Fair		Poor		Poor	
		Depth to cemented pan	0.03	Slope	0.00	Slope	0.00
		Droughty	0.12	Depth to cemented pan	0.00	Depth to cemented pan	0.03
		Too acid	0.68				
17D:							
Hollis	60	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.00	Slope	0.50	Slope	0.00
		Too acid	0.50			Too acid	0.76
Rock outcrop	15	Not rated		Not rated		Not rated	
18C:							
Chatfield	50	Fair		Poor		Fair	
		Depth to bedrock	0.16	Depth to bedrock	0.00	Depth to bedrock	0.16
		Droughty	0.25			Slope	0.84
		Too acid	0.50			Too acid	0.88
Hollis	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.00			Too acid	0.76
		Too acid	0.50				

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
18D:							
Chatfield	50	Fair		Poor		Poor	
		Depth to bedrock	0.16	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.25	Slope	0.50	Depth to bedrock	0.16
		Too acid	0.50			Too acid	0.88
Hollis	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.08	Depth to bedrock	0.00
		Too acid	0.50			Too acid	0.76
21B:							
Galway	75	Fair		Poor		Fair	
		Depth to bedrock	0.29	Depth to bedrock	0.00	Depth to bedrock	0.29
		Droughty	0.29			Rock fragments	0.88
		Too acid	0.92				
21C:							
Galway	75	Fair		Poor		Fair	
		Depth to bedrock	0.29	Depth to bedrock	0.00	Depth to bedrock	0.29
		Droughty	0.29			Slope	0.84
		Too acid	0.92			Rock fragments	0.88
22B:							
Georgia	75	Fair		Fair		Fair	
		Organic matter content low	0.02	Wetness depth	0.14	Wetness depth	0.14
		Droughty	0.92				
24B:							
Farmington	75	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00				
24C:							
Farmington	75	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00			Slope	0.84
25A:							
Wonsqueak, ponded	35	Fair		Poor		Poor	
		Too acid	0.20	Wetness depth	0.00	Wetness depth	0.00
						Organic matter content high	0.00
						Too acid	0.95
Colton	25	Poor		Good		Poor	
		Wind erosion	0.00			Hard to reclaim (rock fragments)	0.00
		Organic matter content low	0.00			Rock fragments	0.00
		Droughty	0.00			Too sandy	0.01
		Too sandy	0.01			Too acid	0.99
		Too acid	0.50				
Rumney	20	Fair		Poor		Poor	
		Organic matter content low	0.02	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.74				
		Water erosion	0.99				

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
25D:							
Farmington, very rocky	70	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00	Slope	0.98	Slope	0.00
32B:							
Mohawk	75	Good		Good		Fair	
						Rock fragments	0.88
						Hard to reclaim (rock fragments)	0.95
32C:							
Mohawk	75	Good		Good		Fair	
						Slope	0.37
						Rock fragments	0.88
						Hard to reclaim (rock fragments)	0.95
32D:							
Mohawk	75	Good		Fair		Poor	
				Slope	0.50	Slope	0.00
						Rock fragments	0.88
						Hard to reclaim (rock fragments)	0.95
33B:							
Angola	75	Fair		Poor		Poor	
		Depth to bedrock	0.71	Depth to bedrock	0.00	Wetness depth	0.00
		Droughty	0.87	Wetness depth	0.00	Depth to bedrock	0.71
34A:							
Manheim	80	Fair		Poor		Poor	
		Water erosion	0.99	Wetness depth	0.00	Wetness depth	0.00
						Rock fragments	0.00
						Hard to reclaim (rock fragments)	0.08
34B:							
Manheim	80	Fair		Poor		Poor	
		Water erosion	0.99	Wetness depth	0.00	Wetness depth	0.00
						Rock fragments	0.00
						Hard to reclaim (rock fragments)	0.08
42B:							
Lansing	75	Fair		Good		Fair	
		Organic matter content low	0.50			Rock fragments	0.88
		Too acid	0.97			Hard to reclaim (rock fragments)	0.98
42C:							
Lansing	80	Fair		Good		Fair	
		Organic matter content low	0.50			Slope	0.37
		Too acid	0.97			Rock fragments	0.88
						Hard to reclaim (rock fragments)	0.98

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
42D:							
Lansing	80	Fair		Fair		Poor	
		Organic matter content low	0.50	Slope	0.50	Slope	0.00
		Too acid	0.97			Rock fragments	0.88
						Hard to reclaim (rock fragments)	0.98
44A:							
Appleton	80	Fair		Poor		Poor	
		Organic matter content low	0.02	Wetness depth	0.00	Wetness depth	0.00
						Hard to reclaim (rock fragments)	0.95
44B:							
Appleton	80	Fair		Poor		Poor	
		Organic matter content low	0.02	Wetness depth	0.00	Wetness depth	0.00
						Hard to reclaim (rock fragments)	0.95
47A:							
Ilion	80	Poor		Poor		Poor	
		Organic matter content low	0.00	Wetness depth	0.00	Wetness depth	0.00
		Water erosion	0.99			Hard to reclaim (rock fragments)	0.92
47B:							
Ilion	80	Poor		Poor		Poor	
		Organic matter content low	0.00	Wetness depth	0.00	Wetness depth	0.00
		Water erosion	0.99			Hard to reclaim (rock fragments)	0.92
49A:							
Fonda	75	Poor		Poor		Poor	
		Too clayey	0.00	Wetness depth	0.00	Wetness depth	0.00
		Water erosion	0.68	Shrink-swell	0.87	Too clayey	0.00
72B:							
Broadalbin, well drained	50	Fair		Poor		Fair	
		Depth to cemented pan	0.03	Depth to cemented pan	0.00	Depth to cemented pan	0.03
		Droughty	0.12				
		Too acid	0.68				
Broadalbin, moderately well drained	30	Fair		Poor		Fair	
		Depth to cemented pan	0.03	Depth to cemented pan	0.00	Depth to cemented pan	0.03
		Droughty	0.12	Wetness depth	0.24	Wetness depth	0.24
		Too acid	0.68				
72C:							
Broadalbin	75	Fair		Poor		Fair	
		Depth to cemented pan	0.03	Depth to cemented pan	0.00	Depth to cemented pan	0.03
		Droughty	0.12			Slope	0.37
		Too acid	0.68				

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
72D:							
Broadalbin----------	75	Fair		Poor		Poor	
		Depth to cemented pan	0.03	Depth to cemented pan	0.00	Slope	0.00
		Droughty	0.12	Slope	0.50	Depth to cemented pan	0.03
		Too acid	0.68				
74A:							
Mosherville---------	80	Poor		Poor		Poor	
		Droughty	0.00	Wetness depth	0.00	Wetness depth	0.00
		Depth to cemented pan	0.00	Depth to cemented pan	0.00	Depth to cemented pan	0.00
		Too acid	0.46			Too acid	0.99
74B:							
Mosherville---------	75	Poor		Poor		Poor	
		Droughty	0.00	Wetness depth	0.00	Wetness depth	0.00
		Depth to cemented pan	0.00	Depth to cemented pan	0.00	Depth to cemented pan	0.00
		Too acid	0.46			Too acid	0.99
77A:							
Sun-----------------	75	Fair		Poor		Poor	
		Organic matter content low	0.50	Wetness depth	0.00	Wetness depth	0.00
		Droughty	0.89			Rock fragments	0.50
		Too acid	0.97				
81B:							
Charlton------------	80	Fair		Good		Fair	
		Organic matter content low	0.02			Hard to reclaim (rock fragments)	0.92
		Too acid	0.50			Rock fragments	0.92
						Too acid	0.95
81C:							
Charlton------------	80	Fair		Good		Fair	
		Organic matter content low	0.02			Slope	0.37
		Too acid	0.50			Hard to reclaim (rock fragments)	0.92
						Rock fragments	0.92
						Too acid	0.95
81D:							
Charlton------------	80	Fair		Fair		Poor	
		Organic matter content low	0.02	Slope	0.50	Slope	0.00
		Too acid	0.50			Hard to reclaim (rock fragments)	0.92
						Rock fragments	0.92
						Too acid	0.95
89A:							
Whitman-------------	75	Fair		Poor		Poor	
		Droughty	0.03	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.50			Rock fragments	0.88

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
90B:							
Palatine	75	Fair		Poor		Poor	
		Droughty	0.64	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.99			Depth to bedrock	0.99
90C:							
Palatine	80	Fair		Poor		Poor	
		Droughty	0.64	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.99			Slope	0.37
						Depth to bedrock	0.99
90D:							
Palatine	85	Fair		Poor		Poor	
		Droughty	0.64	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.99	Slope	0.50	Rock fragments	0.00
						Depth to bedrock	0.99
94B:							
Paxton	75	Fair		Fair		Fair	
		Too acid	0.46	Wetness depth	0.92	Wetness depth	0.92
		Droughty	0.53			Too acid	0.99
94C:							
Paxton	80	Fair		Fair		Fair	
		Too acid	0.46	Wetness depth	0.92	Slope	0.37
		Droughty	0.53			Wetness depth	0.92
						Too acid	0.99
94D:							
Paxton	85	Fair		Fair		Poor	
		Too acid	0.46	Slope	0.50	Slope	0.00
		Droughty	0.53	Wetness depth	0.92	Wetness depth	0.92
						Too acid	0.99
95B:							
Woodbridge	75	Fair		Fair		Fair	
		Droughty	0.17	Wetness depth	0.29	Wetness depth	0.29
		Too acid	0.50			Too acid	0.88
96B:							
Ridgebury	80	Fair		Poor		Poor	
		Droughty	0.01	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.50			Rock fragments	0.88
						Too acid	0.95
99A:							
Timakwa, undrained	75	Poor		Poor		Poor	
		Wind erosion	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.08				
109A:							
Catden, undrained	75	Poor		Poor		Not rated	
		Wind erosion	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.46			Organic matter content high	0.00
						Hard to reclaim (rock fragments)	0.50
						Too acid	0.99

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
112A:							
Scio	45	Poor		Fair		Fair	
		Organic matter content low	0.00	Wetness depth	0.24	Wetness depth	0.24
		Too acid	0.46			Too acid	0.95
		Water erosion	0.68				
Urban land	40	Not rated		Not rated		Not rated	
114B:							
Windsor	60	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.00			Too acid	0.99
		Droughty	0.49				
		Too acid	0.50				
Urban land	30	Not rated		Not rated		Not rated	
114C:							
Windsor	60	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.00			Slope	0.84
		Droughty	0.49			Too acid	0.99
		Too acid	0.50				
Urban land	30	Not rated		Not rated		Not rated	
114D:							
Windsor	60	Poor		Fair		Poor	
		Too sandy	0.00	Slope	0.50	Slope	0.00
		Organic matter content low	0.00			Too sandy	0.00
		Droughty	0.49			Too acid	0.99
		Too acid	0.50				
Urban land	30	Not rated		Not rated		Not rated	
115B:							
Udipsamments, smoothed	85	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.00			Rock fragments	0.12
		Droughty	0.45				
116:							
Urban land	90	Not rated		Not rated		Not rated	
117B:							
Broadalbin, moderately well drained	50	Fair		Poor		Fair	
		Depth to cemented pan	0.03	Depth to cemented pan	0.00	Depth to cemented pan	0.03
		Droughty	0.12	Wetness depth	0.24	Wetness depth	0.24
		Too acid	0.68				

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
Urban land	30	Not rated		Not rated		Not rated	
117C:							
Broadalbin, well drained	45	Fair		Poor		Fair	
		Depth to cemented pan	0.03	Depth to cemented pan	0.00	Depth to cemented pan	0.03
		Droughty	0.12			Slope	0.37
		Too acid	0.68				
Urban land	30	Not rated		Not rated		Not rated	
130B:							
Hudson	75	Fair		Fair		Fair	
		Too clayey	0.08	Wetness depth	0.24	Too clayey	0.05
		Organic matter content low	0.08	Shrink-swell	0.87	Wetness depth	0.24
		Too acid	0.50				
		Water erosion	0.68				
130C:							
Hudson	80	Fair		Fair		Fair	
		Too clayey	0.08	Wetness depth	0.24	Too clayey	0.05
		Organic matter content low	0.08	Shrink-swell	0.87	Wetness depth	0.24
		Too acid	0.50			Slope	0.37
		Water erosion	0.68				
134A:							
Rhinebeck	75	Poor		Poor		Poor	
		Organic matter content low	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too clayey	0.00	Shrink-swell	0.99	Too clayey	0.00
		Water erosion	0.68				
		Too acid	0.97				
134B:							
Rhinebeck	75	Poor		Poor		Poor	
		Organic matter content low	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too clayey	0.00	Shrink-swell	0.99	Too clayey	0.00
		Water erosion	0.68				
		Too acid	0.97				
135A:							
Churchville	80	Poor		Poor		Poor	
		Organic matter content low	0.00	Wetness depth	0.00	Wetness depth	0.00
		Water erosion	0.68			Rock fragments	0.00
						Hard to reclaim (rock fragments)	0.98
135B:							
Churchville	75	Poor		Poor		Poor	
		Organic matter content low	0.00	Wetness depth	0.00	Wetness depth	0.00
		Water erosion	0.68			Rock fragments	0.00
						Hard to reclaim (rock fragments)	0.98

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
137A:							
Madalin	75	Poor		Poor		Poor	
		Organic matter content low	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too clayey	0.00	Shrink-swell	0.87	Too clayey	0.00
		Water erosion	0.68				
151B:							
Unadilla	80	Poor		Good		Good	
		Organic matter content low	0.00				
		Water erosion	0.68				
		Too acid	0.84				
152A:							
Scio	80	Poor		Fair		Fair	
		Organic matter content low	0.00	Wetness depth	0.24	Wetness depth	0.24
		Too acid	0.46			Too acid	0.95
		Water erosion	0.68				
152B:							
Scio	80	Poor		Fair		Fair	
		Organic matter content low	0.00	Wetness depth	0.24	Wetness depth	0.24
		Too acid	0.46			Too acid	0.95
		Water erosion	0.68				
154A:							
Tonawanda	80	Poor		Poor		Poor	
		Organic matter content low	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.46				
		Water erosion	0.68				
154B:							
Tonawanda	80	Poor		Poor		Poor	
		Organic matter content low	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.46				
		Water erosion	0.68				
157A:							
Birdsall	75	Fair		Poor		Poor	
		Organic matter content low	0.02	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.39				
		Water erosion	0.68				
160A:							
Agawam	75	Poor		Good		Good	
		Organic matter content low	0.00				
		Too acid	0.97				
160B:							
Agawam	75	Poor		Good		Good	
		Organic matter content low	0.00				
		Too acid	0.97				

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
162B:							
Ninigret------------	75	Poor		Fair		Fair	
		Organic matter content low	0.00	Wetness depth	0.14	Wetness depth	0.14
		Too acid	0.08			Too sandy	0.78
		Too sandy	0.78				
165A:							
Stafford------------	80	Poor		Poor		Poor	
		Too sandy	0.00	Wetness depth	0.00	Too sandy	0.00
		Organic matter content low	0.00			Wetness depth	0.00
		Droughty	0.06				
		Too acid	0.61				
170B:							
Windsor-------------	75	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.00			Too acid	0.99
		Droughty	0.49				
		Too acid	0.50				
170C:							
Windsor-------------	80	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.00			Slope	0.37
		Droughty	0.49			Too acid	0.99
		Too acid	0.50				
170D:							
Windsor-------------	80	Poor		Fair		Poor	
		Too sandy	0.00	Slope	0.50	Slope	0.00
		Organic matter content low	0.00			Too sandy	0.00
		Droughty	0.49			Too acid	0.99
		Too acid	0.50				
179A:							
Scarboro------------	75	Poor		Poor		Poor	
		Too sandy	0.00	Wetness depth	0.00	Too sandy	0.00
		Wind erosion	0.00			Wetness depth	0.00
		Organic matter content low	0.02				
		Too acid	0.61				
182A:							
Elmridge------------	75	Poor		Fair		Fair	
		Organic matter content low	0.00	Wetness depth	0.24	Wetness depth	0.24
		Water erosion	0.90	Shrink-swell	0.98		
182B:							
Elmridge------------	75	Poor		Fair		Fair	
		Organic matter content low	0.00	Wetness depth	0.24	Wetness depth	0.24
		Water erosion	0.90	Shrink-swell	0.98		

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
187A:							
Aeric Epiaquepts, somewhat poorly drained	50	Fair		Fair		Fair	
		Too acid	0.01	Wetness depth	0.01	Wetness depth	0.01
						Too acid	0.99
Aeric Epiaquepts, poorly drained	30	Fair		Poor		Poor	
		Too acid	0.01	Wetness depth	0.00	Wetness depth	0.00
						Too acid	0.99
189A:							
Cheektowaga	75	Poor		Poor		Poor	
		Organic matter content low	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
				Shrink-swell	0.99		
197A:							
Fredon, somewhat poorly drained	75	Poor		Poor		Poor	
		Too sandy	0.00	Wetness depth	0.00	Wetness depth	0.00
		Organic matter content low	0.02			Rock fragments	0.00
						Too sandy	0.00
						Hard to reclaim (rock fragments)	0.00
201B:							
Alton	80	Poor		Good		Poor	
		Organic matter content low	0.00			Rock fragments	0.00
		Too sandy	0.04			Hard to reclaim (rock fragments)	0.00
		Too acid	0.32			Too sandy	0.04
		Droughty	0.89				
201C:							
Alton	80	Poor		Good		Poor	
		Organic matter content low	0.00			Rock fragments	0.00
		Too sandy	0.04			Hard to reclaim (rock fragments)	0.00
		Too acid	0.32			Too sandy	0.04
		Droughty	0.89			Slope	0.37
201D:							
Alton	80	Poor		Fair		Poor	
		Organic matter content low	0.00	Slope	0.50	Slope	0.00
		Too sandy	0.04			Rock fragments	0.00
		Too acid	0.32			Hard to reclaim (rock fragments)	0.00
		Droughty	0.89			Too sandy	0.04
210A:							
Merrimac	75	Poor		Good		Fair	
		Organic matter content low	0.00			Hard to reclaim (rock fragments)	0.92
		Too acid	0.50			Too acid	0.95
		Droughty	0.85				

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
210B:							
Merrimac	75	Poor		Good		Fair	
		Organic matter content low	0.00			Hard to reclaim (rock fragments)	0.92
		Too acid	0.50			Too acid	0.95
		Droughty	0.85				
210C:							
Merrimac	75	Poor		Good		Fair	
		Organic matter content low	0.00			Slope	0.37
		Too acid	0.50			Hard to reclaim (rock fragments)	0.92
		Droughty	0.85			Too acid	0.95
210D:							
Merrimac	75	Poor		Fair		Poor	
		Organic matter content low	0.00	Slope	0.50	Slope	0.00
		Too acid	0.50			Hard to reclaim (rock fragments)	0.92
		Droughty	0.85			Too acid	0.95
211A:							
Burnt Vly	35	Poor		Poor		Poor	
		Wind erosion	0.00	Wetness depth	0.00	Wetness depth	0.00
		Organic matter content low	0.12			Organic matter content high	0.00
		Too acid	0.50			Too acid	0.59
Humaquepts	25	Fair		Poor		Poor	
		Organic matter content low	0.02	Wetness depth	0.00	Wetness depth	0.00
		Too sandy	0.22			Too sandy	0.22
		Too acid	0.50			Too acid	0.99
Pleasant Lake	20	Poor		Poor		Poor	
		Wind erosion	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.01			Organic matter content high	0.00
						Too acid	0.76
212A:							
Hinckley	80	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.00			Rock fragments	0.00
		Droughty	0.06			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Too acid	0.92
212B:							
Hinckley	80	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.00			Rock fragments	0.00
		Droughty	0.06			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Too acid	0.92

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
212C:							
Hinckley	80	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.00			Rock fragments	0.00
		Droughty	0.06			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Slope	0.37
						Too acid	0.92
232A:							
Teel	75	Fair		Fair		Fair	
		Water erosion	0.68	Wetness depth	0.14	Wetness depth	0.14
244A:							
Darien	75	Fair		Poor		Poor	
		Organic matter content low	0.02	Wetness depth	0.00	Wetness depth	0.00
244B:							
Darien	75	Fair		Poor		Poor	
		Organic matter content low	0.02	Wetness depth	0.00	Wetness depth	0.00
363A:							
Adams	85	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Too acid	0.95
		Organic matter content low	0.02				
		Too acid	0.12				
		Droughty	0.57				
363B:							
Adams	80	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Too acid	0.95
		Organic matter content low	0.02				
		Too acid	0.12				
		Droughty	0.57				
363D:							
Adams	80	Poor		Fair		Poor	
		Too sandy	0.00	Slope	0.08	Slope	0.00
		Organic matter content low	0.02			Too sandy	0.00
		Too acid	0.12			Too acid	0.95
		Droughty	0.57				
363F:							
Adams	75	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Organic matter content low	0.02			Too sandy	0.00
		Too acid	0.12			Too acid	0.95
		Droughty	0.57				

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
365A:							
Naumburg	45	Poor		Poor		Poor	
		Too sandy	0.00	Wetness depth	0.00	Too sandy	0.00
		Organic matter content low	0.02			Wetness depth	0.00
		Too acid	0.50			Too acid	0.88
		Droughty	0.75				
Croghan	35	Poor		Fair		Fair	
		Organic matter content low	0.00	Wetness depth	0.24	Too sandy	0.01
		Too sandy	0.01			Wetness depth	0.24
		Droughty	0.26			Too acid	0.95
		Too acid	0.50				
368A:							
Searsport	35	Poor		Poor		Poor	
		Too sandy	0.00	Wetness depth	0.00	Too sandy	0.00
		Wind erosion	0.00			Wetness depth	0.00
		Organic matter content low	0.02				
		Too acid	0.32				
Wonsqueak	25	Fair		Poor		Poor	
		Too acid	0.20	Wetness depth	0.00	Wetness depth	0.00
						Organic matter content high	0.00
						Too acid	0.95
Naumburg	20	Poor		Poor		Poor	
		Too sandy	0.00	Wetness depth	0.00	Too sandy	0.00
		Wind erosion	0.00			Wetness depth	0.00
		Organic matter content low	0.02			Too acid	0.88
		Too acid	0.50				
		Droughty	0.75				
375A:							
Colton	45	Poor		Good		Poor	
		Wind erosion	0.00			Hard to reclaim (rock fragments)	0.00
		Organic matter content low	0.00			Rock fragments	0.00
		Droughty	0.00			Too sandy	0.01
		Too sandy	0.01			Too acid	0.99
		Too acid	0.50				
Adams	40	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Too acid	0.95
		Organic matter content low	0.02				
		Too acid	0.12				
		Droughty	0.57				

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
375C:							
Colton	45	Poor		Good		Poor	
		Wind erosion	0.00			Hard to reclaim (rock fragments)	0.00
		Organic matter content low	0.00			Rock fragments	0.00
		Droughty	0.00			Too sandy	0.01
		Too sandy	0.01			Slope	0.37
		Too acid	0.50			Too acid	0.99
Adams	40	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Slope	0.84
		Organic matter content low	0.02			Too acid	0.95
		Too acid	0.12				
		Droughty	0.57				
375D:							
Colton	45	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.08	Slope	0.00
		Organic matter content low	0.00			Hard to reclaim (rock fragments)	0.00
		Droughty	0.00			Rock fragments	0.00
		Too sandy	0.01			Too sandy	0.01
		Too acid	0.50			Too acid	0.99
Adams	35	Poor		Fair		Poor	
		Too sandy	0.00	Slope	0.50	Slope	0.00
		Organic matter content low	0.02			Too sandy	0.00
		Too acid	0.12			Too acid	0.95
		Droughty	0.57				
650C:							
Monadnock, very bouldery	35	Poor		Good		Fair	
		Organic matter content low	0.00			Rock fragments	0.12
		Too acid	0.12			Hard to reclaim (rock fragments)	0.32
						Slope	0.84
						Too acid	0.95
Adams	30	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Slope	0.84
		Organic matter content low	0.02			Too acid	0.95
		Too acid	0.12				
		Droughty	0.57				
Colton	20	Poor		Good		Poor	
		Wind erosion	0.00			Hard to reclaim (rock fragments)	0.00
		Organic matter content low	0.00			Rock fragments	0.00
		Droughty	0.00			Too sandy	0.01
		Too sandy	0.01			Slope	0.84
		Too acid	0.50			Too acid	0.99

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
650D:							
Monadnock, very bouldery	40	Poor		Fair		Poor	
		Organic matter content low	0.00	Slope	0.50	Slope	0.00
		Too acid	0.12			Rock fragments	0.12
						Hard to reclaim (rock fragments)	0.32
						Too acid	0.95
Adams	30	Poor		Fair		Poor	
		Too sandy	0.00	Slope	0.50	Slope	0.00
		Wind erosion	0.00			Too sandy	0.00
		Organic matter content low	0.02			Too acid	0.95
		Too acid	0.12				
		Droughty	0.57				
Colton	20	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.08	Slope	0.00
		Organic matter content low	0.00			Hard to reclaim (rock fragments)	0.00
		Droughty	0.00			Rock fragments	0.00
		Too sandy	0.01			Too sandy	0.01
		Too acid	0.50			Too acid	0.99
651C:							
Monadnock, very bouldery	40	Poor		Good		Fair	
		Organic matter content low	0.00			Rock fragments	0.12
		Too acid	0.12			Hard to reclaim (rock fragments)	0.32
						Too acid	0.95
						Slope	0.96
Tunbridge, rolling, very bouldery	25	Fair		Poor		Fair	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Depth to bedrock	0.03
		Droughty	0.15			Rock fragments	0.72
		Too acid	0.50			Slope	0.84
		Organic matter content low	0.50			Too acid	0.88
Sabattis, very bouldery	15	Poor		Poor		Poor	
		Organic matter content low	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.95			Hard to reclaim (rock fragments)	0.92
651D:							
Monadnock, very bouldery	45	Poor		Fair		Poor	
		Organic matter content low	0.00	Slope	0.08	Slope	0.00
		Too acid	0.12			Rock fragments	0.12
						Hard to reclaim (rock fragments)	0.32
						Too acid	0.95

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
Tunbridge, hilly, very bouldery	35	Fair		Poor		Poor	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.15	Slope	0.08	Depth to bedrock	0.03
		Too acid	0.50			Rock fragments	0.72
		Organic matter content low	0.50			Too acid	0.88
651F:							
Monadnock, very bouldery	50	Poor		Poor		Poor	
		Organic matter content low	0.00	Slope	0.00	Slope	0.00
		Too acid	0.12			Rock fragments	0.12
						Hard to reclaim (rock fragments)	0.32
						Too acid	0.95
Tunbridge, very bouldery	35	Fair		Poor		Poor	
		Depth to bedrock	0.03	Slope	0.00	Slope	0.00
		Droughty	0.15	Depth to bedrock	0.00	Depth to bedrock	0.03
		Too acid	0.50			Rock fragments	0.72
		Organic matter content low	0.50			Too acid	0.88
653C:							
Monadnock, very bouldery	80	Poor		Good		Fair	
		Organic matter content low	0.00			Rock fragments	0.12
		Too acid	0.12			Hard to reclaim (rock fragments)	0.32
						Too acid	0.95
						Slope	0.96
653D:							
Monadnock, very bouldery	80	Poor		Fair		Poor	
		Organic matter content low	0.00	Slope	0.08	Slope	0.00
		Too acid	0.12			Rock fragments	0.12
						Hard to reclaim (rock fragments)	0.32
						Too acid	0.95
708B:							
Adirondack, very bouldery	35	Fair		Poor		Poor	
		Too acid	0.01	Wetness depth	0.00	Wetness depth	0.00
		Droughty	0.81			Too acid	0.95
Sabattis, very bouldery	30	Poor		Poor		Poor	
		Organic matter content low	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.95			Hard to reclaim (rock fragments)	0.92

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Tughill, very bouldery-----------	20	Fair		Poor		Poor	
		Organic matter content low	0.08	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.61	Cobble content	0.38	Rock fragments	0.00
		Cobble content	0.99			Hard to reclaim (rock fragments)	0.00
711C:							
Adirondack, very bouldery-----------	40	Fair		Poor		Poor	
		Too acid	0.01	Wetness depth	0.00	Wetness depth	0.00
		Droughty	0.81			Too acid	0.95
Tunbridge, very bouldery-----------	30	Fair		Poor		Fair	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Depth to bedrock	0.03
		Droughty	0.15			Rock fragments	0.72
		Too acid	0.50			Slope	0.84
		Organic matter content low	0.50			Too acid	0.88
Burnt Vly-----------	15	Poor		Poor		Poor	
		Wind erosion	0.00	Wetness depth	0.00	Wetness depth	0.00
		Organic matter content low	0.12			Organic matter content high	0.00
		Too acid	0.50			Too acid	0.59
721C:							
Becket, very bouldery-----------	40	Fair		Fair		Fair	
		Droughty	0.48	Wetness depth	0.65	Wetness depth	0.65
		Too acid	0.50			Too acid	0.76
						Slope	0.84
						Rock fragments	0.88
Tunbridge, very bouldery-----------	25	Fair		Poor		Fair	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Depth to bedrock	0.03
		Droughty	0.15			Rock fragments	0.72
		Too acid	0.50			Slope	0.84
		Organic matter content low	0.50			Too acid	0.88
Skerry, very bouldery-----------	20	Fair		Fair		Fair	
		Organic matter content low	0.50	Wetness depth	0.14	Wetness depth	0.14
		Too acid	0.50			Rock fragments	0.88
		Droughty	0.79			Too acid	0.95
721D:							
Becket, very bouldery-----------	50	Fair		Fair		Poor	
		Droughty	0.48	Slope	0.50	Slope	0.00
		Too acid	0.50	Wetness depth	0.65	Wetness depth	0.65
						Too acid	0.76
						Rock fragments	0.88

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
Tunbridge, very bouldery	30	Fair		Poor		Poor	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.15	Slope	0.50	Depth to bedrock	0.03
		Too acid	0.50			Rock fragments	0.72
		Organic matter content low	0.50			Too acid	0.88
721F:							
Becket, very bouldery	50	Fair		Poor		Poor	
		Droughty	0.48	Slope	0.00	Slope	0.00
		Too acid	0.50	Wetness depth	0.65	Wetness depth	0.65
						Too acid	0.76
						Rock fragments	0.88
Tunbridge, very bouldery	35	Fair		Poor		Poor	
		Depth to bedrock	0.03	Slope	0.00	Slope	0.00
		Droughty	0.15	Depth to bedrock	0.00	Depth to bedrock	0.03
		Too acid	0.50			Rock fragments	0.72
		Organic matter content low	0.50			Too acid	0.88
723C:							
Becket, very bouldery	80	Fair		Fair		Fair	
		Droughty	0.48	Wetness depth	0.65	Wetness depth	0.65
		Too acid	0.50			Too acid	0.76
						Slope	0.84
						Rock fragments	0.88
723D:							
Becket, very bouldery	85	Fair		Fair		Poor	
		Droughty	0.48	Slope	0.08	Slope	0.00
		Too acid	0.50	Wetness depth	0.65	Wetness depth	0.65
						Too acid	0.76
						Rock fragments	0.88
725B:							
Skerry, very bouldery	55	Fair		Fair		Fair	
		Organic matter content low	0.50	Wetness depth	0.14	Wetness depth	0.14
		Too acid	0.50			Rock fragments	0.88
		Droughty	0.79			Too acid	0.95
Becket, very bouldery	30	Fair		Fair		Fair	
		Droughty	0.48	Wetness depth	0.65	Wetness depth	0.65
		Too acid	0.50			Too acid	0.76
						Slope	0.84
						Rock fragments	0.88
727B:							
Skerry, very bouldery	45	Fair		Fair		Fair	
		Organic matter content low	0.50	Wetness depth	0.14	Wetness depth	0.14
		Too acid	0.50			Rock fragments	0.88
		Droughty	0.79			Too acid	0.95

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
Adirondack, very bouldery	35	Fair		Poor		Poor	
		Too acid	0.01	Wetness depth	0.00	Wetness depth	0.00
		Droughty	0.81			Too acid	0.95
741C:							
Potsdam, very bouldery	50	Fair		Good		Fair	
		Too acid	0.50			Too acid	0.95
		Droughty	0.84			Slope	0.96
Tunbridge, very bouldery	30	Fair		Poor		Fair	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Depth to bedrock	0.03
		Droughty	0.15			Rock fragments	0.72
		Too acid	0.50			Too acid	0.88
		Organic matter content low	0.50			Slope	0.96
741D:							
Potsdam, very bouldery	50	Fair		Fair		Poor	
		Too acid	0.50	Slope	0.08	Slope	0.00
		Droughty	0.84			Too acid	0.95
Tunbridge, very bouldery	30	Fair		Poor		Poor	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.15	Slope	0.50	Depth to bedrock	0.03
		Too acid	0.50			Rock fragments	0.72
		Organic matter content low	0.50			Too acid	0.88
743C:							
Potsdam, very bouldery	80	Fair		Good		Fair	
		Too acid	0.50			Too acid	0.95
		Droughty	0.84			Slope	0.96
743D:							
Potsdam, very bouldery	80	Fair		Fair		Poor	
		Too acid	0.50	Slope	0.08	Slope	0.00
		Droughty	0.84			Too acid	0.95
745C:							
Crary, very bouldery	40	Fair		Fair		Fair	
		Droughty	0.30	Wetness depth	0.14	Wetness depth	0.14
		Too acid	0.50			Too acid	0.88
						Slope	0.96
Potsdam, very bouldery	35	Fair		Good		Fair	
		Too acid	0.50			Slope	0.84
		Droughty	0.84			Too acid	0.95
747B:							
Crary, very bouldery	45	Fair		Fair		Fair	
		Droughty	0.30	Wetness depth	0.14	Wetness depth	0.14
		Too acid	0.50			Too acid	0.88

Table 16.—Construction Materials—Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
Adirondack, very bouldery	35	Fair		Poor		Poor	
		Too acid	0.01	Wetness depth	0.00	Wetness depth	0.00
		Droughty	0.81			Too acid	0.95
831C:							
Tunbridge, very bouldery	50	Fair		Poor		Fair	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Depth to bedrock	0.03
		Droughty	0.15			Rock fragments	0.72
		Too acid	0.50			Slope	0.84
		Organic matter content low	0.50			Too acid	0.88
Lyman, very bouldery	25	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.00			Rock fragments	0.94
		Too acid	0.50			Too acid	0.95
						Slope	0.96
831D:							
Tunbridge, very bouldery	50	Fair		Poor		Poor	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.15	Slope	0.50	Depth to bedrock	0.03
		Too acid	0.50			Rock fragments	0.72
		Organic matter content low	0.50			Too acid	0.88
Lyman, very bouldery	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.50	Depth to bedrock	0.00
		Too acid	0.50			Rock fragments	0.94
						Too acid	0.95
831F:							
Tunbridge, very bouldery	45	Fair		Poor		Poor	
		Depth to bedrock	0.03	Slope	0.00	Slope	0.00
		Droughty	0.15	Depth to bedrock	0.00	Depth to bedrock	0.03
		Too acid	0.50			Rock fragments	0.72
		Organic matter content low	0.50			Too acid	0.88
Lyman, very bouldery	35	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Rock fragments	0.94
						Too acid	0.95
833C:							
Tunbridge, very bouldery	45	Fair		Poor		Fair	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Depth to bedrock	0.03
		Droughty	0.15			Rock fragments	0.72
		Too acid	0.50			Slope	0.84
		Organic matter content low	0.50			Too acid	0.88

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
Adirondack, very bouldery	25	Fair		Poor		Poor	
		Too acid	0.01	Wetness depth	0.00	Wetness depth	0.00
		Droughty	0.81			Too acid	0.95
Lyman, very bouldery	15	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.00			Rock fragments	0.94
		Too acid	0.50			Too acid	0.95
						Slope	0.96
836C:							
Tunbridge, very bouldery	45	Fair		Poor		Fair	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Depth to bedrock	0.03
		Droughty	0.15			Rock fragments	0.72
		Too acid	0.50			Slope	0.84
		Organic matter content low	0.50			Too acid	0.88
Wonsqueak	20	Fair		Poor		Poor	
		Too acid	0.20	Wetness depth	0.00	Wetness depth	0.00
						Organic matter content high	0.00
						Too acid	0.95
Knob Lock, very bouldery	15	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Organic matter content high	0.00
		Droughty	0.08			Depth to bedrock	0.00
		Too acid	0.50			Too acid	0.12
						Slope	0.96
851C:							
Lyman, very bouldery	45	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.00			Rock fragments	0.94
		Too acid	0.50			Too acid	0.95
						Slope	0.96
Knob Lock, very bouldery	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Organic matter content high	0.00
		Droughty	0.08			Depth to bedrock	0.00
		Too acid	0.50			Too acid	0.12
						Slope	0.96
851D:							
Lyman, very bouldery	45	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.08	Depth to bedrock	0.00
		Too acid	0.50			Rock fragments	0.94
						Too acid	0.95
Knob Lock, very bouldery	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.08	Slope	0.08	Organic matter content high	0.00
		Too acid	0.50			Depth to bedrock	0.00
						Too acid	0.12

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
851F:							
Lyman, very bouldery	45	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Rock fragments	0.94
						Too acid	0.95
Knob Lock, very bouldery-----------	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.08	Slope	0.00	Organic matter content high	0.00
		Too acid	0.50			Depth to bedrock	0.00
						Too acid	0.12
931D:							
Mundalite, very bouldery-----------	45	Fair		Fair		Poor	
		Too acid	0.50	Slope	0.08	Slope	0.00
		Droughty	0.67	Cobble content	0.99	Rock fragments	0.37
						Too acid	0.88
Rawsonville, very bouldery-----------	35	Fair		Poor		Poor	
		Depth to bedrock	0.29	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.50	Slope	0.08	Depth to bedrock	0.29
						Too acid	0.76
						Organic matter content low	0.99
931F:							
Mundalite, very bouldery-----------	45	Fair		Poor		Poor	
		Too acid	0.50	Slope	0.00	Slope	0.00
		Droughty	0.67	Cobble content	0.99	Rock fragments	0.37
						Too acid	0.88
Rawsonville, very bouldery-----------	35	Fair		Poor		Poor	
		Depth to bedrock	0.29	Slope	0.00	Slope	0.00
		Too acid	0.50	Depth to bedrock	0.00	Depth to bedrock	0.29
						Too acid	0.76
						Organic matter content low	0.99
941C:							
Rawsonville, very bouldery-----------	50	Fair		Poor		Fair	
		Depth to bedrock	0.29	Depth to bedrock	0.00	Depth to bedrock	0.29
		Too acid	0.50			Too acid	0.76
						Slope	0.84
						Organic matter content low	0.99
Hogback, very bouldery-----------	25	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.20			Slope	0.84
		Too acid	0.50			Rock fragments	0.88
						Too acid	0.95
						Organic matter content low	0.99

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
941D:							
Rawsonville, very bouldery	50	Fair		Poor		Poor	
		Depth to bedrock	0.29	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.50	Slope	0.08	Depth to bedrock	0.29
						Too acid	0.76
						Organic matter content low	0.99
Hogback, very bouldery	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.20	Slope	0.08	Depth to bedrock	0.00
		Too acid	0.50			Rock fragments	0.88
						Too acid	0.95
						Organic matter content low	0.99
941F:							
Rawsonville, very bouldery	45	Fair		Poor		Poor	
		Depth to bedrock	0.29	Slope	0.00	Slope	0.00
		Too acid	0.50	Depth to bedrock	0.00	Depth to bedrock	0.29
						Too acid	0.76
						Organic matter content low	0.99
Hogback, very bouldery	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.20	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Rock fragments	0.88
						Too acid	0.95
						Organic matter content low	0.99
1018B:							
Colton	75	Poor		Good		Poor	
		Wind erosion	0.00			Hard to reclaim (rock fragments)	0.00
		Organic matter content low	0.00			Rock fragments	0.00
		Droughty	0.00			Too sandy	0.01
		Too sandy	0.01			Too acid	0.99
		Too acid	0.50				
1018C:							
Colton	75	Poor		Good		Poor	
		Wind erosion	0.00			Hard to reclaim (rock fragments)	0.00
		Organic matter content low	0.00			Rock fragments	0.00
		Droughty	0.00			Too sandy	0.01
		Too sandy	0.01			Slope	0.84
		Too acid	0.50			Too acid	0.99

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1018D:							
Colton	80	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.08	Slope	0.00
		Organic matter content low	0.00			Hard to reclaim (rock fragments)	0.00
		Droughty	0.00			Rock fragments	0.00
		Too sandy	0.01			Too sandy	0.01
		Too acid	0.50			Too acid	0.99
1022A:							
Croghan	80	Poor		Fair		Fair	
		Organic matter content low	0.00	Wetness depth	0.24	Too sandy	0.01
		Too sandy	0.01			Wetness depth	0.24
		Droughty	0.26			Too acid	0.95
		Too acid	0.50				
1023A:							
Naumburg	80	Poor		Poor		Poor	
		Too sandy	0.00	Wetness depth	0.00	Too sandy	0.00
		Organic matter content low	0.02			Wetness depth	0.00
		Too acid	0.50			Too acid	0.88
		Droughty	0.75				
1024A:							
Searsport	75	Poor		Poor		Poor	
		Too sandy	0.00	Wetness depth	0.00	Too sandy	0.00
		Wind erosion	0.00			Wetness depth	0.00
		Organic matter content low	0.02				
		Too acid	0.32				
1025A:							
Adams	85	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Too acid	0.95
		Organic matter content low	0.02				
		Too acid	0.12				
		Droughty	0.57				
1025B:							
Adams	85	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Too acid	0.95
		Organic matter content low	0.02				
		Too acid	0.12				
		Droughty	0.57				
1025C:							
Adams	85	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Slope	0.84
		Organic matter content low	0.02			Too acid	0.95
		Too acid	0.12				
		Droughty	0.57				

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
1025E:							
Adams	80	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Organic matter content low	0.02			Too sandy	0.00
		Too acid	0.12			Too acid	0.95
		Droughty	0.57				
1025F:							
Adams	80	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Organic matter content low	0.02			Too sandy	0.00
		Too acid	0.12			Too acid	0.95
		Droughty	0.57				
1027B:							
Allagash	75	Poor		Good		Fair	
		Organic matter content low	0.00			Too acid	0.95
		Too acid	0.08				
1027C:							
Allagash	80	Poor		Good		Fair	
		Organic matter content low	0.00			Slope	0.84
		Too acid	0.08			Too acid	0.95
1027E:							
Allagash	80	Poor		Poor		Poor	
		Organic matter content low	0.00	Slope	0.00	Slope	0.00
		Too acid	0.08			Too acid	0.95
1070B:							
Berkshire, very bouldery	75	Fair		Good		Fair	
		Organic matter content low	0.02			Too acid	0.76
		Too acid	0.50			Rock fragments	0.88
						Hard to reclaim (rock fragments)	0.92
1070C:							
Berkshire, very bouldery	70	Fair		Good		Fair	
		Organic matter content low	0.02			Too acid	0.76
		Too acid	0.50			Slope	0.84
						Rock fragments	0.88
						Hard to reclaim (rock fragments)	0.92
1070E:							
Berkshire, very bouldery	70	Fair		Poor		Poor	
		Organic matter content low	0.02	Slope	0.00	Slope	0.00
		Too acid	0.50			Too acid	0.76
						Rock fragments	0.88
						Hard to reclaim (rock fragments)	0.92

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
1075B:							
Potsdam, very bouldery	80	Fair		Good		Fair	
		Too acid	0.50			Too acid	0.95
		Droughty	0.84				
1075C:							
Potsdam, very bouldery	80	Fair		Good		Fair	
		Too acid	0.50			Slope	0.84
		Droughty	0.84			Too acid	0.95
1078B:							
Crary, very bouldery	80	Fair		Fair		Fair	
		Droughty	0.30	Wetness depth	0.14	Wetness depth	0.14
		Too acid	0.50			Too acid	0.88
1080B:							
Becket, very bouldery	80	Fair		Fair		Fair	
		Droughty	0.48	Wetness depth	0.65	Wetness depth	0.65
		Too acid	0.50			Too acid	0.76
						Rock fragments	0.88
1080C:							
Becket, very bouldery	80	Fair		Fair		Fair	
		Droughty	0.48	Wetness depth	0.65	Wetness depth	0.65
		Too acid	0.50			Too acid	0.76
						Slope	0.84
						Rock fragments	0.88
1080E:							
Becket, very bouldery	85	Fair		Poor		Poor	
		Droughty	0.48	Slope	0.00	Slope	0.00
		Too acid	0.50	Wetness depth	0.65	Wetness depth	0.65
						Too acid	0.76
						Rock fragments	0.88
1081B:							
Skerry, very bouldery	80	Fair		Fair		Fair	
		Organic matter content low	0.50	Wetness depth	0.14	Wetness depth	0.14
		Too acid	0.50			Rock fragments	0.88
		Droughty	0.79			Too acid	0.95
1081C:							
Skerry, very bouldery	80	Fair		Fair		Fair	
		Organic matter content low	0.50	Wetness depth	0.14	Wetness depth	0.14
		Too acid	0.50			Slope	0.37
		Droughty	0.79			Rock fragments	0.88
						Too acid	0.95
1091C:							
Lyman, very bouldery	35	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.00			Rock fragments	0.94
		Too acid	0.50			Too acid	0.95
						Slope	0.96

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
Becket, very bouldery	30	Fair		Fair		Fair	
		Droughty	0.48	Wetness depth	0.65	Wetness depth	0.65
		Too acid	0.50			Too acid	0.76
						Slope	0.84
						Rock fragments	0.88
Tunbridge, very bouldery	20	Fair		Poor		Fair	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Depth to bedrock	0.03
		Droughty	0.15			Rock fragments	0.72
		Too acid	0.50			Slope	0.84
		Organic matter content low	0.50			Too acid	0.88
1091E:							
Lyman, very bouldery	35	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Rock fragments	0.94
						Too acid	0.95
Becket, very bouldery	30	Fair		Poor		Poor	
		Droughty	0.48	Slope	0.00	Slope	0.00
		Too acid	0.50	Wetness depth	0.65	Wetness depth	0.65
						Too acid	0.76
						Rock fragments	0.88
Tunbridge, very bouldery	20	Fair		Poor		Poor	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.15	Slope	0.00	Depth to bedrock	0.03
		Too acid	0.50			Rock fragments	0.72
		Organic matter content low	0.50			Too acid	0.88
1118C:							
Adams	55	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Slope	0.84
		Organic matter content low	0.02			Too acid	0.95
		Too acid	0.12				
		Droughty	0.57				
Colton	30	Poor		Good		Poor	
		Wind erosion	0.00			Hard to reclaim (rock fragments)	0.00
		Organic matter content low	0.00			Rock fragments	0.00
		Droughty	0.00			Too sandy	0.01
		Too sandy	0.01			Slope	0.84
		Too acid	0.50			Too acid	0.99
1118D:							
Adams	50	Poor		Fair		Poor	
		Too sandy	0.00	Slope	0.08	Slope	0.00
		Wind erosion	0.00			Too sandy	0.00
		Organic matter content low	0.02			Too acid	0.95
		Too acid	0.12				
		Droughty	0.57				

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
Colton	35	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.08	Slope	0.00
		Organic matter content low	0.00			Hard to reclaim (rock fragments)	0.00
		Droughty	0.00			Rock fragments	0.00
		Too sandy	0.01			Too sandy	0.01
		Too acid	0.50			Too acid	0.99
1170B:							
Henniker	75	Fair		Fair		Fair	
		Too acid	0.32	Wetness depth	0.89	Rock fragments	0.88
		Droughty	0.57			Too acid	0.88
						Wetness depth	0.89
1170C:							
Henniker	80	Fair		Fair		Fair	
		Too acid	0.32	Wetness depth	0.89	Slope	0.37
		Droughty	0.57			Rock fragments	0.88
						Too acid	0.88
						Wetness depth	0.89
1170E:							
Henniker	85	Fair		Fair		Poor	
		Too acid	0.32	Slope	0.50	Slope	0.00
		Droughty	0.57	Wetness depth	0.89	Rock fragments	0.88
						Too acid	0.88
						Wetness depth	0.89
1171B:							
Metacomet	80	Poor		Fair		Fair	
		Too acid	0.00	Wetness depth	0.14	Wetness depth	0.14
		Droughty	0.23			Too acid	0.95
						Rock fragments	0.97
1171C:							
Metacomet	80	Poor		Fair		Fair	
		Too acid	0.00	Wetness depth	0.14	Wetness depth	0.14
		Droughty	0.23			Slope	0.84
						Too acid	0.95
						Rock fragments	0.97
1172B:							
Pillsbury, somewhat poorly drained	75	Fair		Fair		Fair	
		Droughty	0.29	Wetness depth	0.09	Wetness depth	0.09
		Too acid	0.50			Too acid	0.95
1178A:							
Adirondack, very bouldery	80	Fair		Poor		Poor	
		Too acid	0.01	Wetness depth	0.00	Wetness depth	0.00
		Droughty	0.81			Too acid	0.95
1178B:							
Adirondack, very bouldery	75	Fair		Poor		Poor	
		Too acid	0.01	Wetness depth	0.00	Wetness depth	0.00
		Droughty	0.81			Too acid	0.95

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
1185A:							
Wonsqueak, undrained	85	Fair		Poor		Poor	
		Too acid	0.20	Wetness depth	0.00	Wetness depth	0.00
						Organic matter content high	0.00
						Too acid	0.95
1190C:							
Tunbridge, very bouldery	50	Fair		Poor		Fair	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Depth to bedrock	0.03
		Droughty	0.15			Rock fragments	0.72
		Too acid	0.50			Slope	0.84
		Organic matter content low	0.50			Too acid	0.88
Lyman, very bouldery	25	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.00			Rock fragments	0.94
		Too acid	0.50			Too acid	0.95
						Slope	0.96
1190E:							
Tunbridge, very bouldery	50	Fair		Poor		Poor	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.15	Slope	0.00	Depth to bedrock	0.03
		Too acid	0.50			Rock fragments	0.72
		Organic matter content low	0.50			Too acid	0.88
Lyman, very bouldery	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Rock fragments	0.94
						Too acid	0.95
1190F:							
Tunbridge, very bouldery	45	Fair		Poor		Poor	
		Depth to bedrock	0.03	Slope	0.00	Slope	0.00
		Droughty	0.15	Depth to bedrock	0.00	Depth to bedrock	0.03
		Too acid	0.50			Rock fragments	0.72
		Organic matter content low	0.50			Too acid	0.88
Lyman, very bouldery	30	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Rock fragments	0.94
						Too acid	0.95
1193A:							
Wonsqueak	60	Fair		Poor		Poor	
		Too acid	0.20	Wetness depth	0.00	Wetness depth	0.00
						Organic matter content high	0.00
						Too acid	0.95

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
Humaquepts, frequently flooded	30	Fair		Poor		Poor	
		Organic matter content low	0.02	Wetness depth	0.00	Wetness depth	0.00
		Too sandy	0.22			Too sandy	0.22
		Too acid	0.50			Too acid	0.99
1291C:							
Becket, very bouldery	35	Fair		Fair		Fair	
		Droughty	0.48	Wetness depth	0.65	Wetness depth	0.65
		Too acid	0.50			Too acid	0.76
						Slope	0.84
						Rock fragments	0.88
Lyman, very bouldery	25	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.00			Rock fragments	0.94
		Too acid	0.50			Too acid	0.95
						Slope	0.96
Tunbridge, very bouldery	20	Fair		Poor		Fair	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Depth to bedrock	0.03
		Droughty	0.15			Rock fragments	0.72
		Too acid	0.50			Slope	0.84
		Organic matter content low	0.50			Too acid	0.88
1291D:							
Becket, very bouldery	40	Fair		Fair		Poor	
		Droughty	0.48	Slope	0.50	Slope	0.00
		Too acid	0.50	Wetness depth	0.65	Wetness depth	0.65
						Too acid	0.76
						Rock fragments	0.88
Lyman, very bouldery	25	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.08	Depth to bedrock	0.00
		Too acid	0.50			Rock fragments	0.94
						Too acid	0.95
Tunbridge, very bouldery	20	Fair		Poor		Poor	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.15	Slope	0.08	Depth to bedrock	0.03
		Too acid	0.50			Rock fragments	0.72
		Organic matter content low	0.50			Too acid	0.88
1292C:							
Becket, very bouldery	50	Fair		Fair		Fair	
		Droughty	0.48	Wetness depth	0.65	Wetness depth	0.65
		Too acid	0.50			Too acid	0.76
						Slope	0.84
						Rock fragments	0.88

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
Tunbridge, very bouldery	25	Fair		Poor		Fair	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Depth to bedrock	0.03
		Droughty	0.15			Rock fragments	0.72
		Too acid	0.50			Slope	0.84
		Organic matter content low	0.50			Too acid	0.88
1292E:							
Becket, very bouldery	50	Fair		Poor		Poor	
		Droughty	0.48	Slope	0.00	Slope	0.00
		Too acid	0.50	Wetness depth	0.65	Wetness depth	0.65
						Too acid	0.76
						Rock fragments	0.88
Tunbridge, very bouldery	30	Fair		Poor		Poor	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.15	Slope	0.00	Depth to bedrock	0.03
		Too acid	0.50			Rock fragments	0.72
		Organic matter content low	0.50			Too acid	0.88
1292F:							
Becket, very bouldery	55	Fair		Poor		Poor	
		Droughty	0.48	Slope	0.00	Slope	0.00
		Too acid	0.50	Wetness depth	0.65	Wetness depth	0.65
						Too acid	0.76
						Rock fragments	0.88
Tunbridge, very bouldery	30	Fair		Poor		Poor	
		Depth to bedrock	0.03	Slope	0.00	Slope	0.00
		Droughty	0.15	Depth to bedrock	0.00	Depth to bedrock	0.03
		Too acid	0.50			Rock fragments	0.72
		Organic matter content low	0.50			Too acid	0.88
1293C:							
Skerry, very bouldery	55	Fair		Fair		Fair	
		Organic matter content low	0.50	Wetness depth	0.14	Wetness depth	0.14
		Too acid	0.50			Rock fragments	0.88
		Droughty	0.79			Too acid	0.95
						Slope	0.96
Tunbridge, very bouldery	25	Fair		Poor		Fair	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Depth to bedrock	0.03
		Droughty	0.15			Rock fragments	0.72
		Too acid	0.50			Slope	0.84
		Organic matter content low	0.50			Too acid	0.88

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
1380C:							
Becket, very bouldery	45	Fair		Fair		Fair	
		Droughty	0.48	Wetness depth	0.65	Slope	0.37
		Too acid	0.50			Wetness depth	0.65
						Too acid	0.76
						Rock fragments	0.88
Skerry, very bouldery	40	Fair		Fair		Fair	
		Organic matter content low	0.50	Wetness depth	0.14	Wetness depth	0.14
		Too acid	0.50			Rock fragments	0.88
		Droughty	0.79			Too acid	0.95
1391C:							
Lyman, very bouldery	40	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.00			Rock fragments	0.94
		Too acid	0.50			Too acid	0.95
						Slope	0.96
Tunbridge, very bouldery	30	Fair		Poor		Fair	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Depth to bedrock	0.03
		Droughty	0.15			Rock fragments	0.72
		Too acid	0.50			Slope	0.84
		Organic matter content low	0.50			Too acid	0.88
Rock outcrop	15	Not rated		Not rated		Not rated	
		Depth to bedrock	0.00				
1391D:							
Lyman, very bouldery	45	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.08	Depth to bedrock	0.00
		Too acid	0.50			Rock fragments	0.94
						Too acid	0.95
Tunbridge, very bouldery	30	Fair		Poor		Poor	
		Depth to bedrock	0.03	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.15	Slope	0.08	Depth to bedrock	0.03
		Too acid	0.50			Rock fragments	0.72
		Organic matter content low	0.50			Too acid	0.88
Rock outcrop	15	Not rated		Not rated		Not rated	
1580B:							
Adirondack, very bouldery	50	Fair		Poor		Poor	
		Too acid	0.01	Wetness depth	0.00	Wetness depth	0.00
		Droughty	0.81			Too acid	0.95

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
Skerry, very bouldery	30	Fair		Fair		Fair	
		Organic matter content low	0.50	Wetness depth	0.14	Wetness depth	0.14
		Too acid	0.50			Rock fragments	0.88
		Droughty	0.79			Too acid	0.95
1591F:							
Lyman, very bouldery	45	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Rock fragments	0.94
						Too acid	0.95
Berkshire, very bouldery	35	Fair		Poor		Poor	
		Organic matter content low	0.02	Slope	0.00	Slope	0.00
		Too acid	0.50			Too acid	0.76
						Rock fragments	0.88
						Hard to reclaim (rock fragments)	0.92
1911C:							
Potsdam, very bouldery	60	Fair		Good		Fair	
		Too acid	0.50			Slope	0.37
		Droughty	0.84			Too acid	0.95
Lyman, very bouldery	25	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.00			Slope	0.84
		Too acid	0.50			Rock fragments	0.94
						Too acid	0.95
1911E:							
Potsdam, very bouldery	60	Fair		Poor		Poor	
		Too acid	0.50	Slope	0.00	Slope	0.00
		Droughty	0.84			Too acid	0.95
Lyman, very bouldery	25	Poor		Poor		Poor	
		Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
		Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
		Too acid	0.50			Rock fragments	0.94
						Too acid	0.95
1920B:							
Monadnock, very bouldery	75	Poor		Good		Fair	
		Organic matter content low	0.00			Rock fragments	0.12
		Too acid	0.12			Hard to reclaim (rock fragments)	0.32
						Too acid	0.95

Table 16.—Construction Materials–Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1920C:							
Monadnock, very bouldery	80	Poor		Good		Fair	
		Organic matter content low	0.00			Rock fragments	0.12
		Too acid	0.12			Hard to reclaim (rock fragments)	0.32
						Slope	0.84
						Too acid	0.95
1920E:							
Monadnock, very bouldery	80	Poor		Fair		Poor	
		Organic matter content low	0.00	Slope	0.50	Slope	0.00
		Too acid	0.12			Rock fragments	0.12
						Hard to reclaim (rock fragments)	0.32
						Too acid	0.95
1941A:							
Sabattis, very bouldery	75	Poor		Poor		Poor	
		Organic matter content low	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.95			Hard to reclaim (rock fragments)	0.92
2170B:							
Henniker, very stony	75	Fair		Fair		Fair	
		Too acid	0.32	Wetness depth	0.89	Rock fragments	0.88
		Droughty	0.57			Too acid	0.88
						Wetness depth	0.89
2170C:							
Henniker, very stony	80	Fair		Fair		Fair	
		Too acid	0.32	Wetness depth	0.89	Slope	0.37
		Droughty	0.57			Rock fragments	0.88
						Too acid	0.88
						Wetness depth	0.89
2170E:							
Henniker, very stony	75	Fair		Fair		Poor	
		Too acid	0.32	Slope	0.50	Slope	0.00
		Droughty	0.57	Wetness depth	0.89	Rock fragments	0.88
						Too acid	0.88
						Wetness depth	0.89
2171B:							
Metacomet, very stony	80	Poor		Fair		Fair	
		Too acid	0.00	Wetness depth	0.14	Wetness depth	0.14
		Droughty	0.23			Too acid	0.95
						Rock fragments	0.97

Table 16.—Construction Materials—Reclamation, Roadfill, and Topsoil—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
2171C:							
Metacomet, very stony	80	Poor		Fair		Fair	
		Too acid	0.00	Wetness depth	0.14	Wetness depth	0.14
		Droughty	0.23			Slope	0.37
						Too acid	0.95
						Rock fragments	0.97
2172B:							
Pillsbury, very stony	75	Fair		Fair		Fair	
		Droughty	0.29	Wetness depth	0.09	Wetness depth	0.09
		Too acid	0.50			Too acid	0.95
DeB:							
Deerfield	75	Poor		Fair		Poor	
		Too sandy	0.00	Wetness depth	0.68	Too sandy	0.00
		Too acid	0.46			Wetness depth	0.68
		Droughty	0.49			Too acid	0.99
		Organic matter content low	0.50				
GP:							
Pits, sand and gravel	80	Poor		Good		Poor	
		Organic matter content low	0.00			Too sandy	0.00
		Too sandy	0.00			Hard to reclaim (rock fragments)	0.00
		Droughty	0.00			Rock fragments	0.00
		Too acid	0.50			Too acid	0.95

Table 17.—Ponds and Embankments

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3A:							
Endoaquolls, frequently flooded	55	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		
Hapludolls, frequently flooded	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Cutbanks cave	1.00
				Depth to saturated zone	0.86	Depth to saturated zone	0.06
4C:							
Udorthents, smoothed	75	Very limited		Very limited		Somewhat limited	
		Slope	1.00	Piping	1.00	Slow refill	0.95
		Seepage	0.05	Depth to saturated zone	0.95	Cutbanks cave	0.10
						Depth to saturated zone	0.02
5C:							
Udorthents, refuse substratum	70	Not rated		Not rated		Not rated	
6A:							
Saprists, frequently ponded	40	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Organic matter content	1.00	Cutbanks cave	0.10
				Ponding	1.00		
				Depth to saturated zone	1.00		
				Seepage	1.00		
				Hard to pack	1.00		
Aquents, frequently ponded	35	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.11	Ponding	1.00	Cutbanks cave	0.10
				Depth to saturated zone	1.00		
				Piping	0.50		
7B:							
Endoaquents, smoothed	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.09		

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
10A:							
Pleasant Lake	45	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Organic matter content	1.00	Cutbanks cave	0.10
				Ponding	1.00		
				Depth to saturated zone	1.00		
				Seepage	1.00		
				Hard to pack	1.00		
Burnt Vly	35	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	1.00		
				Hard to pack	1.00		
11B:							
Hinckley	40	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.68				
Windsor	35	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.32				
11C:							
Hinckley	40	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Windsor	35	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
11D:							
Hinckley	40	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Windsor	40	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
11E:							
Hinckley	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Windsor	40	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
13F:							
Lansing	50	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	0.70	Thin layer	0.01		
Mohawk	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.34	Depth to water	1.00
		Seepage	0.70	Piping	0.22		

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
16E:							
Broadalbin----------	75	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to cemented pan	0.99				
		Seepage	0.70				
17D:							
Hollis--------------	60	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Depth to water	1.00
		Slope	1.00	Piping	1.00		
Rock outcrop--------	15	Not rated ed		Not rated		Not rated	
		Depth to bedrock	1.00				
18C:							
Chatfield-----------	50	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	1.00	Thin layer	0.96		
		Depth to bedrock	0.96				
Hollis--------------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Piping	1.00		
18D:							
Chatfield-----------	50	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	1.00	Thin layer	0.96		
		Depth to bedrock	0.96				
Hollis--------------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Piping	1.00		
21B:							
Galway--------------	75	Somewhat limited		Very limited		Very limited	
		Depth to bedrock	0.93	Piping	1.00	Depth to water	1.00
		Seepage	0.70	Thin layer	0.93		
		Slope	0.32				
21C:							
Galway--------------	75	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Depth to bedrock	0.93	Thin layer	0.93		
		Seepage	0.70				
22B:							
Georgia-------------	75	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.32	Piping	1.00		
				Thin layer	0.37		
24B:							
Farmington----------	75	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Depth to water	1.00
		Slope	0.08	Piping	1.00		

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
24C:							
Farmington	75	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Piping	1.00		
25A:							
Wonsqueak, ponded	35	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	0.10
				Depth to saturated zone	1.00		
				Seepage	1.00		
				Hard to pack	1.00		
Colton	25	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.32				
Rumney	20	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
25D:							
Farmington, very rocky	70	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Depth to water	1.00
		Slope	1.00	Piping	1.00		
32B:							
Mohawk	75	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Thin layer	0.34	Depth to water	1.00
		Slope	0.32	Piping	0.22		
32C:							
Mohawk	75	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.34	Depth to water	1.00
		Seepage	0.70	Piping	0.22		
32D:							
Mohawk	75	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.34	Depth to water	1.00
		Seepage	0.70	Piping	0.22		
33B:							
Angola	75	Somewhat limited		Very limited		Very limited	
		Depth to bedrock	0.81	Depth to saturated zone	1.00	Depth to hard bedrock	1.00
				Thin layer	0.81	Cutbanks cave	1.00
				Piping	0.15	Slow refill	1.00
34A:							
Manheim	80	Somewhat limited		Very limited		Very limited	
		Seepage	0.03	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	0.28	Slow refill	0.97
34B:							
Manheim	80	Somewhat limited		Very limited		Very limited	
		Slope	0.32	Depth to saturated zone	1.00	Cutbanks cave	1.00
		Seepage	0.03	Piping	0.28	Slow refill	0.97

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Pond reservoir areas: Value	Embankments, dikes, and levees: Rating class and limiting features	Embankments, dikes, and levees: Value	Aquifer-fed excavated ponds: Rating class and limiting features	Aquifer-fed excavated ponds: Value
42B:							
Lansing	75	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Depth to water	1.00
		Slope	0.32	Thin layer	0.01		
42C:							
Lansing	80	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	0.70	Thin layer	0.01		
42D:							
Lansing	80	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	0.70	Thin layer	0.01		
44A:							
Appleton	80	Somewhat limited		Very limited		Very limited	
		Seepage	0.02	Depth to saturated zone	1.00	Cutbanks cave	1.00
						Slow refill	0.98
44B:							
Appleton	80	Somewhat limited		Very limited		Very limited	
		Slope	0.32	Depth to saturated zone	1.00	Cutbanks cave	1.00
		Seepage	0.02			Slow refill	0.98
47A:							
Ilion	80	Not limited		Very limited		Very limited	
				Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	0.17	Slow refill	0.47
47B:							
Ilion	80	Somewhat limited		Very limited		Very limited	
		Slope	0.08	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	0.17	Slow refill	0.47
49A:							
Fonda	75	Not limited		Very limited		Somewhat limited	
				Ponding	1.00	Slow refill	0.30
				Depth to saturated zone	1.00	Cutbanks cave	0.10
				Hard to pack	0.57		
72B:							
Broadalbin, well drained	50	Somewhat limited		Somewhat limited		Very limited	
		Depth to cemented pan	0.99	Thin layer	0.99	Depth to water	1.00
		Seepage	0.70				
		Slope	0.32				
Broadalbin, moderately well drained	30	Somewhat limited		Very limited		Very limited	
		Depth to cemented pan	0.99	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.70	Thin layer	0.99		

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
72C:							
Broadalbin----------	75	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to cemented pan	0.99				
		Seepage	0.70				
72D:							
Broadalbin----------	75	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to cemented pan	0.99				
		Seepage	0.70				
74A:							
Mosherville---------	80	Very limited		Very limited		Very limited	
		Depth to cemented pan	1.00	Depth to saturated zone	1.00	Depth to water	1.00
				Thin layer	1.00		
				Piping	1.00		
74B:							
Mosherville---------	75	Very limited		Very limited		Very limited	
		Depth to cemented pan	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.32	Thin layer	1.00		
				Piping	1.00		
77A:							
Sun-----------------	75	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
				Thin layer	0.52		
81B:							
Charlton------------	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.08	Depth to water	1.00
		Slope	0.68				
81C:							
Charlton------------	80	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.08	Depth to water	1.00
		Seepage	1.00				
81D:							
Charlton------------	80	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Seepage	0.08	Depth to water	1.00
		Seepage	1.00				
89A:							
Whitman-------------	75	Not limited		Very limited		Very limited	
				Ponding	1.00	Depth to water	1.00
				Depth to saturated zone	1.00		
				Thin layer	1.00		
				Seepage	0.49		
90B:							
Palatine------------	75	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Thin layer	0.56	Depth to water	1.00
		Slope	0.68				
		Depth to bedrock	0.02				

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
90C:							
Palatine	80	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.56	Depth to water	1.00
		Seepage	0.70				
		Depth to bedrock	0.02				
90D:							
Palatine	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.56	Depth to water	1.00
		Seepage	0.70				
		Depth to bedrock	0.02				
94B:							
Paxton	75	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Thin layer	0.83	Depth to water	1.00
		Slope	0.68	Depth to saturated zone	0.82		
94C:							
Paxton	80	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.83	Depth to water	1.00
		Seepage	0.70	Depth to saturated zone	0.82		
94D:							
Paxton	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.83	Depth to water	1.00
		Seepage	0.70	Depth to saturated zone	0.82		
95B:							
Woodbridge	75	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.08	Piping	1.00		
				Thin layer	0.95		
96B:							
Ridgebury	80	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.08	Piping	1.00		
				Thin layer	0.99		
99A:							
Timakwa, undrained	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	1.00		
109A:							
Catden, undrained	75	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Organic matter content	1.00	Cutbanks cave	0.10
				Ponding	1.00		
				Depth to saturated zone	1.00		
				Seepage	1.00		

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
112A:							
Scio----------------	45	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
				Piping	1.00	Cutbanks cave	0.10
Urban land----------	40	Not rated		Not rated		Not rated	
114B:							
Windsor-------------	60	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.32				
Urban land----------	30	Not rated		Not rated		Not rated	
114C:							
Windsor-------------	60	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Urban land----------	30	Not rated		Not rated		Not rated	
114D:							
Windsor-------------	60	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Urban land----------	30	Not rated		Not rated		Not rated	
115B:							
Udipsamments, smoothed-----------	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
116:							
Urban land----------	90	Not rated		Not rated		Not rated	
117B:							
Broadalbin, moderately well drained------------	50	Somewhat limited		Very limited		Very limited	
		Depth to cemented pan	0.99	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.70	Thin layer	0.99		
		Slope	0.32				
Urban land----------	30	Not rated		Not rated		Not rated	

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
117C:							
Broadalbin, well drained	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to cemented pan	0.99				
		Seepage	0.70				
Urban land	30	Not rated		Not rated		Not rated	
130B:							
Hudson	75	Somewhat limited		Very limited		Very limited	
		Slope	0.08	Depth to saturated zone	1.00	Slow refill	1.00
						Cutbanks cave	0.10
130C:							
Hudson	80	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Slow refill	1.00
						Cutbanks cave	0.10
134A:							
Rhinebeck	75	Not limited		Very limited		Very limited	
				Depth to saturated zone	1.00	Slow refill	1.00
						Cutbanks cave	0.10
134B:							
Rhinebeck	75	Somewhat limited		Very limited		Very limited	
		Slope	0.08	Depth to saturated zone	1.00	Slow refill	1.00
						Cutbanks cave	0.10
135A:							
Churchville	80	Not limited		Very limited		Very limited	
				Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	0.02	Slow refill	1.00
135B:							
Churchville	75	Somewhat limited		Very limited		Very limited	
		Slope	0.08	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	0.02	Slow refill	1.00
137A:							
Madalin	75	Not limited		Very limited		Somewhat limited	
				Depth to saturated zone	1.00	Slow refill	0.97
						Cutbanks cave	0.10
151B:							
Unadilla	80	Somewhat limited		Very limited		Very limited	
		Seepage	0.81	Piping	1.00	Depth to water	1.00
		Slope	0.08				
152A:							
Scio	80	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
				Piping	1.00	Cutbanks cave	0.10

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
152B:							
Scio	80	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
		Slope	0.08	Piping	1.00	Cutbanks cave	0.10
154A:							
Tonawanda	80	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.53	Depth to saturated zone	1.00	Slow refill	0.47
				Piping	1.00	Cutbanks cave	0.10
154B:							
Tonawanda	80	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.53	Depth to saturated zone	1.00	Slow refill	0.47
		Slope	0.08	Piping	1.00	Cutbanks cave	0.10
157A:							
Birdsall	75	Not limited		Very limited		Somewhat limited	
				Ponding	1.00	Slow refill	0.47
				Depth to saturated zone	1.00	Cutbanks cave	0.10
				Piping	1.00		
160A:							
Agawam	75	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.48	Depth to water	1.00
160B:							
Agawam	75	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.48	Depth to water	1.00
		Slope	0.68				
162B:							
Ninigret	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
		Slope	0.08	Seepage	0.24		
165A:							
Stafford	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.67		
170B:							
Windsor	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.08				
170C:							
Windsor	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
170D:							
Windsor	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
179A:							
Scarboro	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	1.00		
182A:							
Elmridge	75	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
182B:							
Elmridge	75	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
		Slope	0.68				
187A:							
Aeric Epiaquepts, somewhat poorly drained	50	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
				Piping	0.11		
Aeric Epiaquepts, poorly drained	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
				Piping	0.11		
189A:							
Cheektowaga	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Depth to water	1.00
				Depth to saturated zone	1.00		
197A:							
Fredon, somewhat poorly drained	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		
201B:							
Alton	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.08				
201C:							
Alton	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
201D:							
Alton	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
210A:							
Merrimac	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
210B:							
Merrimac	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.08				
210C:							
Merrimac	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
210D:							
Merrimac	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
211A:							
Burnt Vly	35	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	1.00		
				Hard to pack	1.00		
Humaquepts	25	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
Pleasant Lake	20	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Organic matter content	1.00	Cutbanks cave	0.10
				Ponding	1.00		
				Depth to saturated zone	1.00		
				Seepage	1.00		
				Hard to pack	1.00		
212A:							
Hinckley	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
212B:							
Hinckley	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.68				
212C:							
Hinckley	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
232A:							
Teel	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	1.00		

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
244A:							
Darien	75	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.03	Depth to saturated zone	1.00	Slow refill	0.97
				Piping	0.37	Cutbanks cave	0.10
244B:							
Darien	75	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.32	Depth to saturated zone	1.00	Slow refill	0.97
		Seepage	0.03	Piping	0.37	Cutbanks cave	0.10
363A:							
Adams	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
363B:							
Adams	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.68				
363D:							
Adams	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
363F:							
Adams	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
365A:							
Naumburg	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		
Croghan	35	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		
368A:							
Searsport	35	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	1.00		
Wonsqueak	25	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	0.10
				Depth to saturated zone	1.00		
				Seepage	1.00		
				Hard to pack	1.00		
Naumburg	20	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
375A:							
Colton	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
Adams	40	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
375C:							
Colton	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Adams	40	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
375D:							
Colton	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Adams	35	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
650C:							
Monadnock, very bouldery	35	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Adams	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Colton	20	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
650D:							
Monadnock, very bouldery	40	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Adams	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Colton	20	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
651C:							
Monadnock, very bouldery	40	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
Tunbridge, rolling, very bouldery	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
Sabattis, very bouldery	15	Somewhat limited		Very limited		Very limited	
		Seepage	0.57	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	0.10		
651D:							
Monadnock, very bouldery	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Tunbridge, hilly, very bouldery	35	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
651F:							
Monadnock, very bouldery	50	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Tunbridge, very bouldery	35	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
653C:							
Monadnock, very bouldery	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
653D:							
Monadnock, very bouldery	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
708B:							
Adirondack, very bouldery	35	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.08	Seepage	1.00		
				Thin layer	0.95		
Sabattis, very bouldery	30	Somewhat limited		Very limited		Very limited	
		Seepage	0.57	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	0.10		

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
Tughill, very bouldery	20	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Ponding	1.00	Cutbanks cave	0.10
				Depth to saturated zone	1.00	Large stones	0.02
				Seepage	0.50		
				Large stones	0.02		
711C:							
Adirondack, very bouldery	40	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.70	Seepage	1.00		
				Thin layer	0.95		
Tunbridge, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
Burnt Vly	15	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	1.00		
				Hard to pack	1.00		
721C:							
Becket, very bouldery	40	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.30	Thin layer	0.95		
				Seepage	0.39		
Tunbridge, very bouldery	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
Skerry, very bouldery	20	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.68	Thin layer	0.88		
				Seepage	0.63		
721D:							
Becket, very bouldery	50	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.30	Thin layer	0.95		
				Seepage	0.39		

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
Tunbridge, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
721F:							
Becket, very bouldery	50	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.30	Thin layer	0.95		
				Seepage	0.39		
Tunbridge, very bouldery	35	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
723C:							
Becket, very bouldery	80	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.30	Thin layer	0.95		
				Seepage	0.39		
723D:							
Becket, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.30	Thin layer	0.95		
				Seepage	0.39		
725B:							
Skerry, very bouldery	55	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.68	Thin layer	0.88		
				Seepage	0.63		
Becket, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.30	Thin layer	0.95		
				Seepage	0.39		
727B:							
Skerry, very bouldery	45	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.68	Thin layer	0.88		
				Seepage	0.63		

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
Adirondack, very bouldery	35	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
				Seepage	1.00		
				Thin layer	0.95		
741C:							
Potsdam, very bouldery	50	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	0.70	Thin layer	0.91		
Tunbridge, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
741D:							
Potsdam, very bouldery	50	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	0.70	Thin layer	0.91		
Tunbridge, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
743C:							
Potsdam, very bouldery	80	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	0.70	Thin layer	0.91		
743D:							
Potsdam, very bouldery	80	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	0.70	Thin layer	0.91		
745C:							
Crary, very bouldery	40	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.70	Piping	1.00		
				Thin layer	0.96		
Potsdam, very bouldery	35	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	0.70	Thin layer	0.91		
747B:							
Crary, very bouldery	45	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.32	Piping	1.00		
				Thin layer	0.96		

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
Adirondack, very bouldery	35	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
				Seepage	1.00		
				Thin layer	0.95		
831C:							
Tunbridge, very bouldery	50	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Depth to water	1.00
		Slope	1.00				
831D:							
Tunbridge, very bouldery	50	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
831F:							
Tunbridge, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
Lyman, very bouldery	35	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
833C:							
Tunbridge, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
Adirondack, very bouldery	25	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.08	Seepage	1.00		
				Thin layer	0.95		
Lyman, very bouldery	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Depth to water	1.00
		Slope	1.00				

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
836C:							
Tunbridge, very bouldery-----------	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
Wonsqueak-----------	20	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	0.10
				Depth to saturated zone	1.00		
				Seepage	1.00		
				Hard to pack	1.00		
Knob Lock, very bouldery-----------	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00	Thin layer	1.00		
				Hard to pack	1.00		
851C:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Depth to water	1.00
		Slope	1.00				
Knob Lock, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00	Thin layer	1.00		
				Hard to pack	1.00		
851D:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
Knob Lock, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Seepage	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Thin layer	1.00		
				Hard to pack	1.00		
851F:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
Knob Lock, very bouldery-----------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Seepage	1.00	Depth to water	1.00
		Depth to bedrock	1.00	Thin layer	1.00		
				Hard to pack	1.00		
931D:							
Mundalite, very bouldery-----------	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.93	Depth to water	1.00
		Seepage	0.57	Depth to saturated zone	0.40		
				Seepage	0.23		

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
Rawsonville, very bouldery	35	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	1.00	Thin layer	0.93		
		Depth to bedrock	0.93				
931F:							
Mundalite, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.93	Depth to water	1.00
		Seepage	0.57	Depth to saturated zone	0.40		
				Seepage	0.23		
Rawsonville, very bouldery	35	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	1.00	Thin layer	0.93		
		Depth to bedrock	0.93				
941C:							
Rawsonville, very bouldery	50	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Depth to water	1.00
		Slope	1.00	Thin layer	0.93		
		Depth to bedrock	0.93				
Hogback, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Depth to water	1.00
		Slope	1.00				
941D:							
Rawsonville, very bouldery	50	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	1.00	Thin layer	0.93		
		Depth to bedrock	0.93				
Hogback, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
941F:							
Rawsonville, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	1.00	Thin layer	0.93		
		Depth to bedrock	0.93				
Hogback, very bouldery	30	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Depth to bedrock	1.00				
1018B:							
Colton	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.08				

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
1018C:							
Colton	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
1018D:							
Colton	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
1022A:							
Croghan	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		
1023A:							
Naumburg	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	1.00		
1024A:							
Searsport	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	1.00		
1025A:							
Adams	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
1025B:							
Adams	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.68				
1025C:							
Adams	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
1025E:							
Adams	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
1025F:							
Adams	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
1027B:							
Allagash	75	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	0.32				
1027C:							
Allagash	80	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	1.00				

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
1027E:							
Allagash	80	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	1.00				
1070B:							
Berkshire, very bouldery	75	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	0.32				
1070C:							
Berkshire, very bouldery	70	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
1070E:							
Berkshire, very bouldery	70	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
1075B:							
Potsdam, very bouldery	80	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Depth to water	1.00
		Slope	0.32	Thin layer	0.91		
1075C:							
Potsdam, very bouldery	80	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	0.70	Thin layer	0.91		
1078B:							
Crary, very bouldery	80	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.32	Piping	1.00		
				Thin layer	0.96		
1080B:							
Becket, very bouldery	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.68	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.30	Thin layer	0.95		
				Seepage	0.39		
1080C:							
Becket, very bouldery	80	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.30	Thin layer	0.95		
				Seepage	0.39		

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
1080E:							
Becket, very bouldery	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.30	Thin layer	0.95		
				Seepage	0.39		
1081B:							
Skerry, very bouldery	80	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.32	Thin layer	0.88		
				Seepage	0.63		
1081C:							
Skerry, very bouldery	80	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.70	Thin layer	0.88		
				Seepage	0.63		
1091C:							
Lyman, very bouldery	35	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
Becket, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.30	Thin layer	0.95		
				Seepage	0.39		
Tunbridge, very bouldery	20	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
1091E:							
Lyman, very bouldery	35	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
Becket, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.30	Thin layer	0.95		
				Seepage	0.39		
Tunbridge, very bouldery	20	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
1118C:							
Adams	55	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Colton	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
1118D:							
Adams	50	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
Colton	35	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
1170B:							
Henniker	75	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.73	Depth to saturated zone	0.86	Depth to water	1.00
		Slope	0.68	Thin layer	0.83		
1170C:							
Henniker	80	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.86	Depth to water	1.00
		Seepage	0.73	Thin layer	0.83		
1170E:							
Henniker	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.86	Depth to water	1.00
		Seepage	0.73	Thin layer	0.83		
1171B:							
Metacomet	80	Somewhat limited		Very limited		Very limited	
		Seepage	0.72	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.32	Thin layer	0.83		
				Seepage	0.76		
1171C:							
Metacomet	80	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.72	Thin layer	0.83		
				Seepage	0.76		
1172B:							
Pillsbury, somewhat poorly drained	75	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.08	Thin layer	0.77		
				Seepage	0.11		

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1178A:							
Adirondack, very bouldery	80	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
				Seepage	1.00		
				Thin layer	0.95		
1178B:							
Adirondack, very bouldery	75	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.08	Seepage	1.00		
				Thin layer	0.95		
1185A:							
Wonsqueak, undrained	85	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	0.10
				Depth to saturated zone	1.00		
				Seepage	1.00		
				Hard to pack	1.00		
1190C:							
Tunbridge, very bouldery	50	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Depth to water	1.00
		Slope	1.00				
1190E:							
Tunbridge, very bouldery	50	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
1190F:							
Tunbridge, very bouldery	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
1193A:							
Wonsqueak-----------	60	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	0.10
				Depth to saturated zone	1.00		
				Seepage	1.00		
				Hard to pack	1.00		
Humaquepts, frequently flooded-	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
1291C:							
Becket, very bouldery-----------	35	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.30	Thin layer	0.95		
				Seepage	0.39		
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
Tunbridge, very bouldery-----------	20	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
1291D:							
Becket, very bouldery-----------	40	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.30	Thin layer	0.95		
				Seepage	0.39		
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
Tunbridge, very bouldery-----------	20	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
1292C:							
Becket, very bouldery-----------	50	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.30	Thin layer	0.95		
				Seepage	0.39		
Tunbridge, very bouldery-----------	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
1292E:							
Becket, very bouldery-----------	50	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.30	Thin layer	0.95		
				Seepage	0.39		
Tunbridge, very bouldery-----------	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
1292F:							
Becket, very bouldery-----------	55	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.30	Thin layer	0.95		
				Seepage	0.39		
Tunbridge, very bouldery-----------	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
1293C:							
Skerry, very bouldery-----------	55	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.70	Thin layer	0.88		
				Seepage	0.63		
Tunbridge, very bouldery-----------	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
1380C:							
Becket, very bouldery-----------	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.30	Thin layer	0.95		
				Seepage	0.39		
Skerry, very bouldery-----------	40	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.70	Thin layer	0.88		
				Seepage	0.63		
1391C:							
Lyman, very bouldery	40	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Tunbridge, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
Rock outcrop	15	Not rated		Not rated		Not rated	
1391D:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
Tunbridge, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.99	Depth to water	1.00
		Depth to bedrock	0.99				
		Seepage	0.70				
Rock outcrop	15	Not rated		Not rated		Not rated	
1580B:							
Adirondack, very bouldery	50	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.08	Seepage	1.00		
				Thin layer	0.95		
Skerry, very bouldery	30	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Cutbanks cave	1.00
		Slope	0.68	Thin layer	0.88	Slow refill	0.30
				Seepage	0.63		
1591F:							
Lyman, very bouldery	45	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
Berkshire, very bouldery	35	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	1.00				
1911C:							
Potsdam, very bouldery	60	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	0.70	Thin layer	0.91		
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
1911E:							
Potsdam, very bouldery	60	Very limited		Very limited		Very limited	
		Slope	1.00	Piping	1.00	Depth to water	1.00
		Seepage	0.70	Thin layer	0.91		
Lyman, very bouldery	25	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	1.00				
1920B:							
Monadnock, very bouldery	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	0.32				
1920C:							
Monadnock, very bouldery	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
1920E:							
Monadnock, very bouldery	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
		Slope	1.00				
1941A:							
Sabattis, very bouldery	75	Somewhat limited		Very limited		Very limited	
		Seepage	0.57	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	0.10		
2170B:							
Henniker, very stony	75	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.73	Depth to saturated zone	0.86	Depth to water	1.00
		Slope	0.68	Thin layer	0.83		
2170C:							
Henniker, very stony	80	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.86	Depth to water	1.00
		Seepage	0.73	Thin layer	0.83		
2170E:							
Henniker, very stony	75	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.86	Depth to water	1.00
		Seepage	0.73	Thin layer	0.83		
2171B:							
Metacomet, very stony	80	Somewhat limited		Very limited		Very limited	
		Seepage	0.72	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.68	Thin layer	0.83		
				Seepage	0.76		

Table 17.—Ponds and Embankments—Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
2171C:							
Metacomet, very stony	80	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.72	Thin layer	0.83		
				Seepage	0.76		
2172B:							
Pillsbury, very stony	75	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.08	Thin layer	0.77		
				Seepage	0.11		
DeB:							
Deerfield	75	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.98	Cutbanks cave	1.00
		Slope	0.68	Seepage	0.74	Depth to saturated zone	0.01
GP:							
Pits, sand and gravel	80	Not rated		Not rated		Not rated	

Table 18.—Engineering Properties

(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passi sieve number-- 4	10	40
	In				Pct	Pct			
3A:									
Endoaquolls, frequently flooded--------	0-4	Fine sandy loam	SM, ML, GM	A-2, A-4	0	0-10	60-100	35-100	20-95
	4-11	Fine sandy loam, gravelly silt loam, very gravelly loamy sand	SM, ML, GM	A-2, A-4	0	0-10	60-100	35-100	20-95
	11-18	Loamy fine sand, gravelly silt loam, very gravelly loamy sand	SM, GM, ML	A-4, A-2	0	0-10	60-100	35-100	20-95
	18-24	Loamy fine sand, gravelly silt loam, very gravelly loamy sand	SM, ML, GM	A-4, A-2	0	0-10	60-100	35-100	20-95
	24-29	Loamy fine sand, gravelly silt loam, very gravelly loamy sand	SM, ML, GM	A-4, A-2	0	0-10	60-100	35-100	20-95
	29-33	Gravelly loamy fine sand, gravelly silt loam, very gravelly loamy sand, silty clay loam	CL, SM, ML, GM	A-1, A-4, A-2	0	0-25	50-100	35-100	15-95
	33-60	Very gravelly loamy sand, gravelly silt loam, silty clay loam	SW-SM, ML, GM, CL	A-1, A-2, A-4, A-6	0	0-25	50-100	35-100	15-95
Hapludolls, frequently flooded--------	0-2	Fine sandy loam	GM, SM, ML	A-2, A-4	0	0-10	60-100	35-100	20-95
	2-10	Fine sandy loam, gravelly silt loam, very gravelly loamy sand	ML, SM, GM	A-2, A-4	0	0-10	60-100	35-100	20-95
	10-19	Loamy fine sand, gravelly silt loam, very gravelly loamy sand	GM, ML, SM	A-4, A-2	0	0-10	60-100	35-100	20-95
	19-29	Loamy fine sand, gravelly silt loam, very gravelly loamy sand	GM, ML, SM	A-4, A-2	0	0-10	60-100	35-100	20-95

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
	29-33	Loamy sand, gravelly silt loam, very gravelly loamy fine sand	SM, ML, GM	A-4, A-2	0	0-10	60-100	35-100	20-95
	33-36	Loamy fine sand, gravelly silt loam, very gravelly loamy sand	ML, SM, GM	A-4, A-2	0	0-10	60-100	35-100	20-95
	36-40	Gravelly loamy fine sand, gravelly silt loam, very gravelly loamy sand, silty clay loam	CL, GM, ML, SM	A-1, A-4, A-2	0	0-25	50-100	35-100	15-95
	40-60	Very gravelly loamy sand, gravelly silt loam, silty clay loam	SW-SM, CL, GM, ML	A-1, A-2, A-4, A-6	0	0-25	50-100	35-100	15-95
4C: Udorthents, smoothed-------	0-4	Loam	SM, SC, ML, CL	A-2, A-4, A-6	0-1	0-15	40-100	30-100	10-100
	4-17	Loam, silt loam, channery loam	SM, SC, ML, CL	A-2, A-4, A-6	0-1	0-15	40-100	30-100	10-100
	17-27	Loam, silt loam, channery loam, gravelly loamy sand	CL, ML, SC, SM	A-2, A-4, A-6	0-5	0-15	40-100	30-100	10-100
	27-36	Silt loam, loam, channery loam, gravelly loamy sand	ML, CL, GM, SC	A-1, A-2, A-4, A-6	0-5	0-15	40-100	30-100	10-100
	36-72	Silt loam, very channery loam, silty clay loam, gravelly loamy sand	ML, SC, CL, GM	A-1, A-2, A-4, A-6	0-5	0-15	40-100	30-100	10-100
5C: Udorthents, refuse substratum-----	0-21	Fine sandy loam	ML, SM	A-4	0	0	100	92-100	70-100
	21-39	Silty clay loam, silt loam, loam	CL, ML	A-4, A-6, A-7	0	0	95-100	92-100	80-100
	39	Material			---	---	---	---	---
	39-57	Silty clay loam, silt loam, clay	CL, ML	A-7-6, A-6	0	0	95-100	85-100	70-100
	57-300	Material			---	---	---	---	---

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
6A:									
Saprists, frequently ponded---------	0-51	Muck	PT	A-8	0	0	100	100	75-100
	51-72	Gravelly loamy sand, silt loam, silty clay, sand	SM, ML, CL	A-2, A-4, A-6	0	0-10	40-100	25-100	10-100
Aquents, frequently ponded---------	0-9	Muck	PT	A-8	0	0-2	65-100	50-100	25-100
	9-70	Gravelly loamy sand, silt loam, silty clay, sand	CL, ML, SM	A-2, A-4, A-6	0	0-10	40-100	25-100	10-100
7B:									
Endoaquents, smoothed-------	0-10	Fine sandy loam, loam	ML, SM	A-2, A-4, A-6	0	0-5	70-100	60-100	40-95
	10-16	Loam, channery loam, fine sandy loam, sandy loam	ML, GM, SM	A-2, A-4, A-6	0	0-5	70-100	60-100	35-95
	16-20	Mucky fine sandy loam, channery loam, fine sandy loam, sandy loam	SM, ML, GM	A-2, A-4, A-6	0	0-10	70-100	55-100	35-95
	20-23	Fine sandy loam, channery loam, sandy loam, loamy sand	GM, ML, SM	A-2, A-4, A-6	0	0-10	70-100	55-100	35-95
	23-36	Gravelly fine sandy loam, channery loam, sandy loam	GM, ML, SM	A-2, A-4, A-6	0	0-10	70-100	55-100	30-95
	36-50	Loamy fine sand, gravelly fine sandy loam, sandy loam, channery loam	SM, GM, ML	A-2, A-4, A-6	0-5	0-10	70-100	55-100	30-95
10A:									
Pleasant Lake---	0-2	Mucky peat	PT	A-8	0	0	100	100	90-100
	2-5	Muck, mucky peat	PT	A-8	0	0	100	100	90-100
	5-44	Muck	PT	A-8	0	0	100	100	90-100
	44-78	Muck	PT	A-8	0	0	100	100	90-100
	78-86	Muck	PT	A-8	0	0	100	100	90-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
Burnt Vly-------	0-1	Peat	PT	A-8	0	0	100	100	90-100
	1-3	Mucky peat, muck	PT	A-8	0	0	100	100	90-100
	3-11	Muck	PT	A-8	0	0	100	100	90-100
	11-26	Muck	PT	A-8	0	0	100	100	90-100
	26-30	Muck	PT	A-8	0	0	100	100	90-100
	30-60	Loamy sand, gravelly sand, very gravelly very fine sand	SC-SM, SM, SP, GP	A-2, A-3, A-1	0	0-5	50-100	35-100	15-80
11B:									
Hinckley--------	0-6	Gravelly loamy sand	GM, GP-GM, SM, SP-SM	A-1, A-2	0	0-10	50-95	35-92	15-75
	6-16	Gravelly loamy sand, loamy fine sand, very gravelly loamy coarse sand	SP-SM, GM, GP-GM, SM	A-1, A-2	0	0-25	50-95	35-92	15-65
	16-20	Very gravelly sand, gravelly loamy sand, loamy fine sand, very gravelly loamy coarse sand	SM, SP-SM, GP-GM, SP	A-1, A-2	0	0-25	45-95	35-92	15-65
	20-72	Stratified very gravelly sand	GW, GP-GM, GP, SP	A-1	0	7-30	40-92	30-85	10-50
Windsor---------	0-2	Moderately decomposed plant material	PT	A-8	0	0	95-100	92-100	80-100
	2-11	Loamy sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	11-21	Loamy sand, loamy fine sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	21-25	Sand, loamy sand, loamy fine sand	SM, SP-SM	A-1, A-2, A-3	0	0	95-100	92-100	45-80
	25-72	Sand, fine sand, loamy sand	SW-SM, SP, SP-SM	A-1, A-2, A-3	0	0	95-100	92-100	40-80
11C:									
Hinckley--------	0-6	Gravelly loamy sand	SP-SM, GM, GP-GM, SM	A-1, A-2	0	0-10	50-95	35-92	15-75
	6-16	Gravelly loamy sand, loamy fine sand, very gravelly loamy coarse sand	GP-GM, SM, SP-SM, GM	A-1, A-2	0	0-25	50-95	35-92	15-65
	16-20	Very gravelly sand, gravelly loamy sand, loamy fine sand, very gravelly loamy coarse sand	SM, SP-SM, GP-GM, SP	A-1, A-2	0	0-25	45-95	35-92	15-65
	20-72	Stratified very gravelly sand	GP-GM, SP, GP, GW	A-1	0	7-30	40-92	30-85	10-50

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
Windsor---------	0-2	Moderately decomposed plant material	PT	A-8	0	0	95-100	92-100	80-100
	2-11	Loamy sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	11-21	Loamy sand, loamy fine sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	21-25	Sand, loamy sand, loamy fine sand	SM, SP-SM	A-1, A-3, A-2	0	0	95-100	92-100	45-80
	25-72	Sand, fine sand, loamy sand	SW-SM, SP-SM, SP	A-1, A-2, A-3	0	0	95-100	92-100	40-80
11D:									
Hinckley--------	0-6	Gravelly loamy sand	GM, GP-GM, SM, SP-SM	A-1, A-2	0	0-10	50-95	35-92	15-75
	6-16	Gravelly loamy sand, loamy fine sand, very gravelly loamy coarse sand	GM, GP-GM, SM, SP-SM	A-1, A-2	0	0-25	50-95	35-92	15-65
	16-20	Very gravelly sand, gravelly loamy sand, loamy fine sand, very gravelly loamy coarse sand	GP-GM, SM, SP, SP-SM	A-1, A-2	0	0-25	45-95	35-92	15-65
	20-72	Stratified very gravelly sand	GW, GP-GM, SP, GP	A-1	0	7-30	40-92	30-85	10-50
Windsor---------	0-2	Moderately decomposed plant material	PT	A-8	0	0	95-100	92-100	80-100
	2-11	Loamy sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	11-21	Loamy sand, loamy fine sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	21-25	Sand, loamy sand, loamy fine sand	SP-SM, SM	A-1, A-3, A-2	0	0	95-100	92-100	45-80
	25-72	Sand, fine sand, loamy sand	SP, SP-SM, SW-SM	A-1, A-2, A-3	0	0	95-100	92-100	40-80
11E:									
Hinckley--------	0-6	Gravelly loamy sand	GM, GP-GM, SM, SP-SM	A-1, A-2	0	0-10	50-95	35-92	15-75
	6-16	Gravelly loamy sand, loamy fine sand, very gravelly loamy coarse sand	GM, SP-SM, SM, GP-GM	A-1, A-2	0	0-25	50-95	35-92	15-65
	16-20	Very gravelly sand, gravelly loamy sand, loamy fine sand, very gravelly loamy coarse sand	GP-GM, SM, SP, SP-SM	A-1, A-2	0	0-25	45-95	35-92	15-65
	20-72	Stratified very gravelly sand	GW, SP, GP, GP-GM	A-1	0	7-30	40-92	30-85	10-50

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
Windsor---------	0-2	Moderately decomposed plant material	PT	A-8	0	0	95-100	92-100	80-100
	2-11	Loamy sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	11-21	Loamy sand, loamy fine sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	21-25	Sand, loamy sand, loamy fine sand	SP-SM, SM	A-1, A-3, A-2	0	0	95-100	92-100	45-80
	25-72	Sand, fine sand, loamy sand	SW-SM, SP, SP-SM	A-1, A-2, A-3	0	0	95-100	92-100	40-80
13F:									
Lansing---------	0-8	Loam	ML, SM	A-4	0-5	0-15	60-100	40-96	35-95
	8-17	Loam, gravelly silt loam, very gravelly very fine sandy loam	SM, ML, GM, CL-ML	A-4	0-5	0-15	60-100	40-96	35-95
	17-23	Loam, very gravelly silt loam, gravelly silty clay loam	CL, GM, CL-ML	A-4, A-6	0-5	0-15	60-100	40-96	35-90
	23-36	Loam, very gravelly silt loam, gravelly silty clay loam	CL, CL-ML, GC, GM	A-4, A-6	0-5	0-15	60-100	40-96	35-90
	36-56	Gravelly loam, very gravelly silt loam, silty clay loam	CL-ML, GC, CL, SC	A-2, A-4	0-8	0-15	60-100	40-96	35-90
	56-84	Cobbly fine sandy loam, very gravelly loam, gravelly silt loam	SC-SM, GC	A-2, A-4	0-8	1-25	50-90	35-75	20-70
Mohawk----------	0-9	Silt loam	CL, ML	A-4, A-6	0	0-5	80-100	70-100	60-95
	9-17	Silt loam, loam, gravelly loam	SC, CL	A-4, A-6	0	0-5	80-100	70-100	60-95
	17-23	Loam, silt loam, gravelly loam	SC, CL	A-4, A-6	0-1	0-5	80-100	70-100	55-95
	23-35	Silty clay loam, silt loam, loam, gravelly loam	SC, CL	A-4, A-7, A-6	0-1	0-5	80-100	70-98	55-95
	35-43	Gravelly silt loam, loam, silty clay loam, gravelly fine sandy loam	CL, SC	A-4, A-6	0-3	0-8	80-100	70-98	55-90
	43-53	Gravelly loam, fine sandy loam, silt loam	GC, SC, CL	A-4, A-6	0-5	0-15	65-95	50-92	35-85
	53-80	Gravelly fine sandy loam, loam, silt loam	GC, SC, CL	A-4, A-6, A-2	0-5	0-15	65-95	50-92	35-85

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
16E:									
Broadalbin-------	0-9	Fine sandy loam	SM, CL, ML	A-2, A-4	0-3	0-5	70-100	50-98	40-95
	9-17	Fine sandy loam, loam, gravelly silt loam	ML, SM, CL	A-2, A-4	0-3	0-5	70-100	50-98	40-95
	17-22	Fine sandy loam, silt loam, gravelly loam	SM, CL, CL-ML, ML	A-2, A-4	0-3	0-5	70-100	50-98	35-95
	22-36	Fine sandy loam, loam, gravelly sandy loam	SC, GM, ML, SM	A-2, A-4	0-3	0-10	65-96	50-95	30-85
	36-54	Loam, very gravelly sandy loam, gravelly fine sandy loam	GC-GM, CL	A-2, A-4	0-3	1-10	50-94	35-85	20-75
	54-69	Gravelly fine sandy loam, very gravelly loam, sandy loam	GC-GM, SC	A-2, A-4	0-3	1-10	50-94	35-85	20-75
	69-80	Gravelly loam, fine sandy loam, very gravelly sandy loam	GC-GM, SC	A-2, A-4	0-3	1-10	50-94	35-85	20-75
17D:									
Hollis-----------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	65-100	50-100	50-100
	1-4	Highly decomposed plant material	PT	A-8	0-5	0-10	65-100	50-100	50-100
	4-9	Loam	ML, SM	A-4, A-2	0-5	0-10	65-95	50-92	30-85
	9-15	Loam, fine sandy loam, gravelly fine sandy loam, sandy loam	ML, SM, GM	A-4, A-2	0-5	0-10	65-95	50-92	30-85
	15-25	Unweathered bedrock			---	---	---	---	---
Rock outcrop-----		Unweathered bedrock			---	---	---	---	---
18C:									
Chatfield--------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	65-100	50-100	50-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	65-100	50-100	50-100
	3-7	Loam	ML, SM, CL-ML	A-4, A-2	0-5	0-10	65-95	50-92	30-90
	7-16	Silt loam, loam, gravelly loam, cobbly sandy loam	ML, SM, GM, CL-ML	A-4, A-2	0-5	0-10	65-95	50-92	30-90
	16-25	Silt loam, loam, gravelly loam, cobbly sandy loam	ML, SM, GM, CL-ML	A-4, A-2	0-5	0-10	65-95	50-92	30-90
	25-35	Unweathered bedrock			---	---	---	---	---

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
Hollis----------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	65-100	50-100	50-100
	1-4	Highly decomposed plant material	PT	A-8	0-5	0-10	65-100	50-100	50-100
	4-9	Loam	ML, SM	A-4, A-2	0-5	0-10	65-95	50-92	30-85
	9-15	Loam, fine sandy loam, gravelly fine sandy loam, sandy loam	ML, SM, GM	A-4, A-2	0-5	0-10	65-95	50-92	30-85
	15-25	Unweathered bedrock			---	---	---	---	---
18D:									
Chatfield-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	65-100	50-100	50-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	65-100	50-100	50-100
	3-7	Loam	ML, SM, CL-ML	A-4, A-2	0-5	0-10	65-95	50-92	30-90
	7-16	Silt loam, loam, gravelly loam, cobbly sandy loam	ML, SM, GM, CL-ML	A-4, A-2	0-5	0-10	65-95	50-92	30-90
	16-25	Silt loam, loam, gravelly loam, cobbly sandy loam	ML, SM, GM, CL-ML	A-4, A-2	0-5	0-10	65-95	50-92	30-90
	25-35	Unweathered bedrock			---	---	---	---	---
Hollis----------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	65-100	50-100	50-100
	1-4	Highly decomposed plant material	PT	A-8	0-5	0-10	65-100	50-100	50-100
	4-9	Loam	ML, SM	A-4, A-2	0-5	0-10	65-95	50-92	30-85
	9-15	Loam, fine sandy loam, gravelly fine sandy loam, sandy loam	ML, SM, GM	A-4, A-2	0-5	0-10	65-95	50-92	30-85
	15-25	Unweathered bedrock			---	---	---	---	---
21B:									
Galway----------	0-7	Loam	ML, SM	A-6, A-4	0-1	0-7	65-100	50-100	45-95
	7-16	Loam, fine sandy loam, silt loam, gravelly fine sandy loam	ML, SM, CL, GM	A-4, A-6	0-1	0-10	65-96	50-95	35-90
	16-27	Fine sandy loam, loam, silt loam, gravelly fine sandy loam	ML, SC-SM, CL, GM	A-4, A-6, A-2	0-1	0-10	65-96	50-95	35-90
	27-37	Unweathered bedrock			---	---	---	---	---

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
21C:									
Galway----------	0-7	Loam	ML, SM	A-6, A-4	0-1	0-7	65-100	50-100	45-95
	7-16	Loam, fine sandy loam, silt loam, gravelly fine sandy loam	ML, SM, CL, GM	A-4, A-6	0-1	0-10	65-96	50-95	35-90
	16-27	Fine sandy loam, loam, silt loam, gravelly fine sandy loam	ML, SC-SM, CL, GM	A-4, A-6, A-2	0-1	0-10	65-96	50-95	35-90
	27-37	Unweathered bedrock			---	---	---	---	---
22B:									
Georgia---------	0-8	Silt loam	ML, SM	A-4	0-3	0-15	60-96	50-92	40-90
	8-12	Silt loam, gravelly loam, fine sandy loam	SM, GM, ML	A-2, A-4	0-3	0-15	60-96	50-92	35-90
	12-18	Loam, silt loam, gravelly fine sandy loam	SM, GM	A-2, A-4	0-3	0-15	60-96	50-92	35-90
	18-24	Loam, silt loam, gravelly fine sandy loam	SM, GM	A-2, A-4	0-3	0-15	60-95	50-92	35-90
	24-32	Loam, silt loam, gravelly fine sandy loam	SM, GM	A-2, A-4	0-3	0-15	60-95	50-92	35-90
	32-42	Loam, gravelly fine sandy loam, silt loam	SM, GM	A-2, A-4	0-3	0-15	60-95	50-92	35-90
	42-60	Fine sandy loam, loam, gravelly silt loam	GM, SM	A-2, A-4	0-3	0-15	60-95	50-92	35-90
24B:									
Farmington------	0-7	Loam	CL, ML, SC, SM	A-2, A-4, A-6	0-5	0-15	65-95	50-92	35-85
	7-13	Silt loam, gravelly loam, gravelly fine sandy loam	CL, GC, ML, SM	A-2, A-4, A-6	0-5	0-15	65-95	50-92	35-85
	13-23	Unweathered bedrock			---	---	---	---	---
24C:									
Farmington------	0-7	Loam	SM, CL, ML, SC	A-2, A-4, A-6	0-5	0-15	65-95	50-92	35-85
	7-13	Silt loam, gravelly loam, gravelly fine sandy loam	ML, CL, GC, SM	A-2, A-4, A-6	0-5	0-15	65-95	50-92	35-85
	13-23	Unweathered bedrock			---	---	---	---	---

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
25A:									
Wonsqueak, ponded----------	0-9	Mucky peat	PT	A-8	0	0	100	100	90-100
	9-24	Muck	PT	A-8	0	0	100	100	90-100
	24-44	Muck	PT	A-8	0	0	100	100	90-100
	44-72	Fine sandy loam, silt loam, silty clay loam	SC, SM, ML, CL-ML, CL	A-4, A-6	0	0-5	85-100	75-100	55-100
Colton----------	0-1	Moderately decomposed plant material	PT	A-8	0	0	100	100	---
	1-3	Sandy loam	SP-SM, GM, SM, GP-GM	A-1, A-2, A-3	0	0-10	45-95	35-92	20-65
	3-4	Gravelly sandy loam, very gravelly sand, gravelly coarse sandy loam, loamy sand	GW-GM, SM, GM	A-1, A-2	0-1	0-10	45-95	35-92	20-65
	4-5	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	GM, GW-GM, SM	A-1	0-1	0-10	45-90	35-75	15-50
	5-13	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	GW-GM, SM, GM	A-1	0-1	0-10	45-90	35-75	15-50
	13-21	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	GM, GW, SP-SM	A-1	0-1	0-15	45-90	35-75	15-50
	21-32	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	GM, SP-SM, GW	A-1	0-1	0-15	45-90	35-75	15-50
	32-80	Stratified very gravelly coarse sand, extremely gravelly coarse sand, very gravelly loamy sand, very cobbly sand	GP, GW, SP, SW	A-1	0-1	0-25	40-75	20-50	10-30

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
Rumney----------	0-8	Silt loam	ML, SM	A-4, A-2	0	0-5	85-100	75-100	40-100
	8-12	Silt loam, fine sandy loam, sandy loam, very fine sandy loam	ML, SM	A-4, A-2	0	0-5	85-100	75-100	40-100
	12-16	Very fine sandy loam, fine sandy loam, loam, sandy loam	SM, SC-SM, ML, CL	A-2, A-4	0	0-5	85-100	75-100	40-95
	16-34	Loam, sandy loam, fine sandy loam	CL, SM, ML, SC-SM	A-2, A-4	0	0-5	85-100	75-100	40-95
	34-39	Loam, loamy sand, stratified very gravelly coarse sand to loamy fine sand, gravelly sandy loam	SM, SP-SM, GP-GM, GM	A-2, A-1, A-4	0	0-15	55-100	45-100	20-90
	39-72	Loamy sand, stratified very gravelly coarse sand to loamy fine sand, gravelly sand	SM, SP-SM, GP-GM, GM	A-1, A-2, A-3	0	0-15	55-100	45-100	20-90
25D:									
Farmington, very rocky----------	0-7	Loam	SM, CL, ML, SC	A-2, A-4, A-6	0-5	0-15	65-95	50-92	35-85
	7-13	Silt loam, gravelly loam, gravelly fine sandy loam	ML, CL, GC, SM	A-2, A-4, A-6	0-5	0-15	65-95	50-92	35-85
	13-23	Unweathered bedrock			---	---	---	---	---
32B:									
Mohawk----------	0-9	Silt loam	CL, ML	A-4, A-6	0	0-5	80-100	70-100	60-95
	9-17	Silt loam, loam, gravelly loam	CL, SC	A-4, A-6	0	0-5	80-100	70-100	60-95
	17-23	Loam, silt loam, gravelly loam	SC, CL	A-4, A-6	0-1	0-5	80-100	70-100	55-95
	23-35	Silty clay loam, silt loam, loam, gravelly loam	SC, CL	A-6, A-4, A-7	0-1	0-5	80-100	70-98	55-95
	35-43	Gravelly silt loam, loam, silty clay loam, gravelly fine sandy loam	SC, CL	A-4, A-6	0-3	0-8	80-100	70-98	55-90
	43-53	Gravelly loam, fine sandy loam, silt loam	SC, GC, CL	A-4, A-6	0-5	0-15	65-95	50-92	35-85
	53-80	Gravelly fine sandy loam, loam, silt loam	SC, GC, CL	A-2, A-4, A-6	0-5	0-15	65-95	50-92	35-85

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
32C:									
Mohawk----------	0-9	Silt loam	CL, ML	A-4, A-6	0	0-5	80-100	70-100	60-95
	9-17	Silt loam, loam, gravelly loam	SC, CL	A-4, A-6	0	0-5	80-100	70-100	60-95
	17-23	Loam, silt loam, gravelly loam	SC, CL	A-4, A-6	0-1	0-5	80-100	70-100	55-95
	23-35	Silty clay loam, silt loam, loam, gravelly loam	SC, CL	A-6, A-4, A-7	0-1	0-5	80-100	70-98	55-95
	35-43	Gravelly silt loam, loam, silty clay loam, gravelly fine sandy loam	CL, SC	A-4, A-6	0-3	0-8	80-100	70-98	55-90
	43-53	Gravelly loam, fine sandy loam, silt loam	CL, GC, SC	A-4, A-6	0-5	0-15	65-95	50-92	35-85
	53-80	Gravelly fine sandy loam, loam, silt loam	SC, CL, GC	A-2, A-4, A-6	0-5	0-15	65-95	50-92	35-85
32D:									
Mohawk----------	0-9	Silt loam	CL, ML	A-4, A-6	0	0-5	80-100	70-100	60-95
	9-17	Silt loam, loam, gravelly loam	CL, SC	A-4, A-6	0	0-5	80-100	70-100	60-95
	17-23	Loam, silt loam, gravelly loam	CL, SC	A-4, A-6	0-1	0-5	80-100	70-100	55-95
	23-35	Silty clay loam, silt loam, loam, gravelly loam	CL, SC	A-6, A-4, A-7	0-1	0-5	80-100	70-98	55-95
	35-43	Gravelly silt loam, loam, silty clay loam, gravelly fine sandy loam	CL, SC	A-4, A-6	0-3	0-8	80-100	70-98	55-90
	43-53	Gravelly loam, fine sandy loam, silt loam	CL, GC, SC	A-4, A-6	0-5	0-15	65-95	50-92	35-85
	53-80	Gravelly fine sandy loam, loam, silt loam	CL, GC, SC	A-2, A-4, A-6	0-5	0-15	65-95	50-92	35-85
33B:									
Angola----------	0-10	Silt loam	CL, ML	A-4, A-6, A-7	0	0-5	70-100	55-100	50-100
	10-14	Silty clay loam, clay loam, channery silt loam, loam	ML, CL	A-4, A-6	0	0-5	70-100	50-97	45-95
	14-24	Silty clay loam, clay loam, channery loam	CL, ML, GM, GC	A-4, A-6	0-3	0-7	70-100	50-97	45-95
	24-29	Clay loam, channery loam, silt loam, silty clay loam	ML, CL, GM	A-4, A-6	0-3	0-7	70-100	50-97	45-95

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	29-32	Gravelly loam, very channery silt loam, channery silty clay loam	GC, CL, GM, ML	A-2, A-4, A-6	0-5	0-15	45-95	35-85	25-80
	32-42	Bedrock			---	---	---	---	---
34A:									
Manheim---------	0-8	Silt loam	ML, CL, OL	A-6, A-4	0	0	65-96	50-92	40-90
	8-18	Silt loam, silty clay loam, channery loam	GC, ML, CL	A-4, A-6	0-1	0-5	65-96	50-92	40-90
	18-28	Channery silty clay loam, gravelly loam, silt loam	CL, GC, SC	A-4, A-6	0-1	0-5	65-96	50-92	40-90
	28-44	Channery silt loam, silty clay loam, gravelly loam	GC, SC, CL	A-4, A-6	0-2	0-5	65-96	50-92	40-90
	44-72	Gravelly silt loam, channery loam, loam	CL, GC, SC	A-4, A-6	0-5	0-10	45-96	35-92	25-90
34B:									
Manheim---------	0-8	Silt loam	OL, ML, CL	A-6, A-4	0	0	65-96	50-92	40-90
	8-18	Silt loam, silty clay loam, channery loam	CL, GC	A-4, A-6	0-1	0-5	65-96	50-92	40-90
	18-28	Channery silty clay loam, gravelly loam, silt loam	GC, CL, SC	A-4, A-6	0-1	0-5	65-96	50-92	40-90
	28-44	Channery silt loam, silty clay loam, gravelly loam	GC, CL, SC	A-4, A-6	0-2	0-5	65-96	50-92	40-90
	44-72	Gravelly silt loam, channery loam, loam	CL, GC, SC	A-4	0-5	0-10	45-96	35-92	25-90
42B:									
Lansing---------	0-8	Loam	ML, SM	A-4	0-5	0-15	60-100	40-96	35-95
	8-17	Loam, gravelly silt loam, very gravelly very fine sandy loam	GM, ML, CL-ML, SM	A-4	0-5	0-15	60-100	40-96	35-95
	17-23	Loam, very gravelly silt loam, gravelly silty clay loam	CL, GM, CL-ML	A-6, A-4	0-5	0-15	60-100	40-96	35-90
	23-36	Loam, very gravelly silt loam, gravelly silty clay loam	GM, GC, CL-ML, CL	A-6, A-4	0-5	0-15	60-100	40-96	35-90
	36-56	Gravelly loam, very gravelly silt loam, silty clay loam	GC, CL, CL-ML, SC	A-2, A-4	0-8	0-15	60-100	40-96	35-90

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	56-84	Cobbly fine sandy loam, very gravelly loam, gravelly silt loam	GC, SC-SM	A-2, A-4	0-8	1-25	50-90	35-75	20-70
42C:									
Lansing---------	0-8	Loam	ML, SM	A-4	0-5	0-15	60-100	40-96	35-95
	8-17	Loam, gravelly silt loam, very gravelly very fine sandy loam	CL-ML, GM, ML, SM	A-4	0-5	0-15	60-100	40-96	35-95
	17-23	Loam, very gravelly silt loam, gravelly silty clay loam	GM, CL-ML, CL	A-6, A-4	0-5	0-15	60-100	40-96	35-90
	23-36	Loam, very gravelly silt loam, gravelly silty clay loam	GC, CL, CL-ML, GM	A-6, A-4	0-5	0-15	60-100	40-96	35-90
	36-56	Gravelly loam, very gravelly silt loam, silty clay loam	CL, CL-ML, SC, GC	A-2, A-4	0-8	0-15	60-100	40-96	35-90
	56-84	Cobbly fine sandy loam, very gravelly loam, gravelly silt loam	GC, SC-SM	A-2, A-4	0-8	1-25	50-90	35-75	20-70
42D:									
Lansing---------	0-8	Loam	SM, ML	A-4	0-5	0-15	60-100	40-96	35-95
	8-17	Loam, gravelly silt loam, very gravelly very fine sandy loam	SM, ML, CL-ML, GM	A-4	0-5	0-15	60-100	40-96	35-95
	17-23	Loam, very gravelly silt loam, gravelly silty clay loam	CL-ML, CL, GM	A-6, A-4	0-5	0-15	60-100	40-96	35-90
	23-36	Loam, very gravelly silt loam, gravelly silty clay loam	CL-ML, GC, GM, CL	A-6, A-4	0-5	0-15	60-100	40-96	35-90
	36-56	Gravelly loam, very gravelly silt loam, silty clay loam	CL, CL-ML, SC, GC	A-2, A-4	0-8	0-15	60-100	40-96	35-90
	56-84	Cobbly fine sandy loam, very gravelly loam, gravelly silt loam	GC, SC-SM	A-2, A-4	0-8	1-25	50-90	35-75	20-70

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
44A:									
Appleton--------	0-8	Silt loam	ML, SM, CL	A-2, A-4	0-1	0-8	65-95	50-92	35-90
	8-15	Loam, silt loam, gravelly fine sandy loam	CL, GM, ML, SM	A-2, A-4	0-1	0-8	65-95	50-92	35-90
	15-24	Loam, fine sandy loam, gravelly silt loam	CL, GC-GM, SC	A-2, A-4	0-3	0-10	65-95	50-92	40-90
	24-32	Loam, sandy clay loam, gravelly silt loam	SC, CL, GC-GM	A-2, A-4	0-3	0-10	65-95	50-92	40-90
	32-72	Gravelly fine sandy loam, very channery loam, silt loam	CL, CL-ML, GC, SC	A-2, A-4	0-8	0-20	50-95	35-92	20-90
44B:									
Appleton--------	0-8	Silt loam	CL, ML, SM	A-2, A-4	0-1	0-8	65-95	50-92	35-90
	8-15	Loam, silt loam, gravelly fine sandy loam	CL, SM, ML, GM	A-2, A-4	0-1	0-8	65-95	50-92	35-90
	15-24	Loam, fine sandy loam, gravelly silt loam	CL, GC-GM, SC	A-2, A-4	0-3	0-10	65-95	50-92	40-90
	24-32	Loam, sandy clay loam, gravelly silt loam	SC, CL, GC-GM	A-2, A-4	0-3	0-10	65-95	50-92	40-90
	32-72	Gravelly fine sandy loam, very channery loam, silt loam	GC, SC, CL, CL-ML	A-2, A-4	0-8	0-20	50-95	35-92	20-90
47A:									
Ilion-----------	0-7	Silt loam	ML, OL, SM	A-6, A-4, A-7	0	0-5	85-100	70-100	60-100
	7-13	Silty clay loam, silt loam, channery loam	ML, CL, SM	A-4, A-6, A-7	0	0-5	85-100	70-100	60-100
	13-21	Silty clay loam, clay loam, channery clay loam	CL-ML, CL, GC-GM	A-4, A-6	0	0-5	85-100	70-100	65-100
	21-37	Silty clay loam, clay loam, channery clay loam	CL-ML, CL, GC-GM	A-4, A-6	0-2	0-5	65-96	50-92	45-90
	37-72	Gravelly loam, silty clay loam, channery silt loam	CL, CL-ML, GC-GM	A-4, A-6	0-5	1-12	60-92	50-85	40-80

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passi sieve number--: 4	10	40
	In				Pct	Pct			
47B:									
Ilion-----------	0-7	Silt loam	SM, OL, ML	A-6, A-4, A-7	0	0-5	85-100	70-100	60-100
	7-13	Silty clay loam, silt loam, channery loam	ML, CL, SM	A-4, A-6, A-7	0	0-5	85-100	70-100	60-100
	13-21	Silty clay loam, clay loam, channery clay loam	GC-GM, CL-ML, CL	A-4, A-6	0	0-5	85-100	70-100	65-100
	21-37	Silty clay loam, clay loam, channery clay loam	CL, CL-ML, GC-GM	A-4, A-6	0-2	0-5	65-96	50-92	45-90
	37-72	Gravelly loam, silty clay loam, channery silt loam	CL, GC-GM, CL-ML	A-4, A-6	0-5	1-12	60-92	50-85	40-80
49A:									
Fonda-----------	0-6	Mucky silt loam	CL, OL, OH	A-4, A-6, A-7	0	0	95-100	95-100	80-100
	6-12	Silty clay, silty clay loam, clay	CH, CL	A-7	0	0	95-100	95-100	80-100
	12-40	Silty clay, silty clay loam, clay	CH, CL	A-7	0	0	95-100	95-100	80-100
	40-46	Silty clay, silty clay loam, clay	CH, CL	A-6, A-7	0	0	95-100	95-100	80-100
	46-54	Silty clay, clay, stratified silty clay loam to loam	CH, CL	A-6, A-7	0	0	95-100	95-100	80-100
	54-60	Silty clay, clay, silty clay loam	CH, CL	A-6, A-7	0	0	95-100	95-100	80-100
72B:									
Broadalbin, well drained--------	0-9	Fine sandy loam	SM, ML, CL	A-2, A-4	0-3	0-5	70-100	50-98	40-95
	9-17	Fine sandy loam, loam, gravelly silt loam	CL, SM, ML	A-2, A-4	0-3	0-5	70-100	50-98	40-95
	17-22	Fine sandy loam, silt loam, gravelly loam	SM, CL, CL-ML, ML	A-2, A-4	0-3	0-5	70-100	50-98	35-95
	22-36	Fine sandy loam, loam, gravelly sandy loam	SC, SM, GM, ML	A-2, A-4	0-3	0-10	65-96	50-95	30-85
	36-54	Loam, very gravelly sandy loam, gravelly fine sandy loam	GC-GM, CL	A-2, A-4	0-3	1-10	50-94	35-85	20-75
	54-69	Gravelly fine sandy loam, very gravelly loam, sandy loam	GC-GM, SC	A-2, A-4	0-3	1-10	50-94	35-85	20-75
	69-80	Gravelly loam, very gravelly sandy loam, fine sandy loam	GC-GM, SC	A-2, A-4	0-3	1-10	50-94	35-85	20-75

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
Broadalbin, moderately well drained--------	0-9	Fine sandy loam	SM, ML, CL	A-2, A-4	0-3	0-5	70-100	50-98	40-95
	9-17	Fine sandy loam, loam, gravelly silt loam	ML, SM, CL	A-2, A-4	0-3	0-5	70-100	50-98	40-95
	17-22	Fine sandy loam, silt loam, gravelly loam	CL, CL-ML, ML, SM	A-2, A-4	0-3	0-5	70-100	50-98	35-95
	22-36	Fine sandy loam, loam, gravelly sandy loam	SM, GM, ML, SC	A-2, A-4	0-3	0-10	65-96	50-95	30-85
	36-54	Loam, very gravelly sandy loam, gravelly fine sandy loam	CL, GC-GM	A-2, A-4	0-3	1-10	50-94	35-85	20-75
	54-69	Gravelly fine sandy loam, very gravelly loam, sandy loam	SC, GC-GM	A-2, A-4	0-3	1-10	50-94	35-85	20-75
	69-80	Gravelly loam, very gravelly sandy loam, fine sandy loam	GC-GM, SC	A-2, A-4	0-3	1-10	50-94	35-85	20-75
72C: Broadalbin------	0-9	Fine sandy loam	SM, CL, ML	A-2, A-4	0-3	0-5	70-100	50-98	40-95
	9-17	Fine sandy loam, loam, gravelly silt loam	SM, CL, ML	A-2, A-4	0-3	0-5	70-100	50-98	40-95
	17-22	Fine sandy loam, silt loam, gravelly loam	CL-ML, CL, SM, ML	A-2, A-4	0-3	0-5	70-100	50-98	35-95
	22-36	Fine sandy loam, loam, gravelly sandy loam	SC, ML, GM, SM	A-2, A-4	0-3	0-10	65-96	50-95	30-85
	36-54	Loam, very gravelly sandy loam, gravelly fine sandy loam	CL, GC-GM	A-2, A-4	0-3	1-10	50-94	35-85	20-75
	54-69	Gravelly fine sandy loam, very gravelly loam, sandy loam	GC-GM, SC	A-2, A-4	0-3	1-10	50-94	35-85	20-75
	69-80	Gravelly loam, fine sandy loam, very gravelly sandy loam	SC, GC-GM	A-2, A-4	0-3	1-10	50-94	35-85	20-75
72D: Broadalbin------	0-9	Fine sandy loam	CL, ML, SM	A-2, A-4	0-3	0-5	70-100	50-98	40-95
	9-17	Fine sandy loam, loam, gravelly silt loam	ML, SM, CL	A-2, A-4	0-3	0-5	70-100	50-98	40-95
	17-22	Fine sandy loam, silt loam, gravelly loam	CL-ML, CL, SM, ML	A-2, A-4	0-3	0-5	70-100	50-98	35-95
	22-36	Fine sandy loam, loam, gravelly sandy loam	GM, ML, SM, SC	A-2, A-4	0-3	0-10	65-96	50-95	30-85

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
	36-54	Loam, very gravelly sandy loam, gravelly fine sandy loam	CL, GC-GM	A-2, A-4	0-3	1-10	50-94	35-85	20-75
	54-69	Gravelly fine sandy loam, very gravelly loam, sandy loam	GC-GM, SC	A-2, A-4	0-3	1-10	50-94	35-85	20-75
	69-80	Very gravelly sandy loam, gravelly loam, fine sandy loam	SC, GC-GM	A-2, A-4	0-3	1-10	50-94	35-85	20-75
74A: Mosherville-----	0-9	Loam	ML	A-4	0	0-5	80-100	65-98	50-95
	9-13	Loam, silt loam, gravelly very fine sandy loam	ML, SM, GM	A-2, A-4	0-2	0-5	80-100	65-98	40-95
	13-27	Fine sandy loam, loam, gravelly fine sandy loam	ML, CL-ML, SC-SM	A-2, A-4	0-3	0-10	70-96	55-92	35-85
	27-37	Loam, fine sandy loam, gravelly fine sandy loam	CL-ML, SC-SM	A-2, A-4	0-3	0-10	70-96	55-92	35-85
	37-42	Fine sandy loam, loam, gravelly fine sandy loam	SC, SC-SM	A-2, A-4	0-3	0-10	70-96	60-92	35-85
	42-72	Fine sandy loam, loam, gravelly fine sandy loam	SC-SM, SC	A-2, A-4	0-5	0-10	70-96	60-92	35-85
74B: Mosherville-----	0-9	Loam	ML	A-4	0	0-5	80-100	65-98	50-95
	9-13	Loam, silt loam, gravelly very fine sandy loam	GM, SM, ML	A-2, A-4	0-2	0-5	80-100	65-98	40-95
	13-27	Fine sandy loam, loam, gravelly fine sandy loam	CL-ML, ML, SC-SM	A-2, A-4	0-3	0-10	70-96	55-92	35-85
	27-37	Loam, fine sandy loam, gravelly fine sandy loam	SC-SM, CL-ML	A-2, A-4	0-3	0-10	70-96	55-92	35-85
	37-42	Fine sandy loam, loam, gravelly fine sandy loam	SC, SC-SM	A-2, A-4	0-3	0-10	70-96	60-92	35-85
	42-72	Fine sandy loam, loam, gravelly fine sandy loam	SC, SC-SM	A-2, A-4	0-5	0-10	70-96	60-92	35-85

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
77A:									
Sun	0-5	Loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0-5	0-10	65-100	50-96	30-95
	5-9	Loam, sandy loam, gravelly fine sandy loam, silt loam	SM, CL-ML, ML, SC-SM	A-2, A-4	0-5	0-10	65-100	50-96	30-95
	9-15	Fine sandy loam, sandy loam, gravelly loam, silt loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0-5	0-15	65-100	50-96	30-95
	15-23	Loam, sandy loam, gravelly fine sandy loam, silt loam	ML, GM, SC-SM, SM	A-2, A-4	0-5	0-15	65-100	50-96	30-95
	23-39	Fine sandy loam, gravelly sandy loam, loam	ML, SC-SM, SM	A-2, A-4	0-5	0-15	60-100	50-96	30-90
	39-80	Gravelly fine sandy loam, gravelly loam, very gravelly sandy loam	SM, GC-GM, GM, SC-SM	A-1, A-2, A-4	0-5	0-20	50-90	35-75	15-65
81B:									
Charlton	0-14	Loam	ML, SM	A-4, A-2	0-1	0-10	70-96	50-92	30-80
	14-27	Gravelly fine sandy loam, sandy loam, fine sandy loam, gravelly loam	SM, ML	A-4, A-2	0-2	0-10	70-96	50-92	30-80
	27-36	Sandy loam, gravelly fine sandy loam, gravelly loam	SM	A-4, A-2	0-2	0-10	65-96	50-92	30-80
	36-72	Gravelly sandy loam, gravelly fine sandy loam, loam	SM, GM	A-1, A-2, A-4	0-5	0-15	50-96	35-92	15-80
81C:									
Charlton	0-14	Loam	ML, SM	A-4, A-2	0-1	0-10	70-96	50-92	30-80
	14-27	Gravelly fine sandy loam, sandy loam, fine sandy loam, gravelly loam	SM, ML	A-4, A-2	0-2	0-10	70-96	50-92	30-80
	27-36	Sandy loam, gravelly fine sandy loam, gravelly loam	SM	A-4, A-2	0-2	0-10	65-96	50-92	30-80
	36-72	Gravelly sandy loam, gravelly fine sandy loam, loam	SM, GM	A-1, A-2, A-4	0-5	0-15	50-96	35-92	15-80

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
81D:									
Charlton--------	0-14	Loam	ML, SM	A-4, A-2	0-1	0-10	70-96	50-92	30-80
	14-27	Gravelly fine sandy loam, sandy loam, fine sandy loam, gravelly loam	SM, ML	A-4, A-2	0-2	0-10	70-96	50-92	30-80
	27-36	Sandy loam, gravelly fine sandy loam, gravelly loam	SM	A-4, A-2	0-2	0-10	65-96	50-92	30-80
	36-72	Gravelly sandy loam, gravelly fine sandy loam, loam	SM, GM	A-1, A-2, A-4	0-5	0-15	50-96	35-92	15-80
89A:									
Whitman---------	0-2	Muck	PT	A-8	0-5	0-25	70-100	60-100	50-100
	2-8	Mucky loam	CL-ML, ML, SM	A-2, A-4	0-5	0-25	70-95	60-92	35-90
	8-10	Fine sandy loam, gravelly loam, sandy loam	CL-ML, ML, SM	A-2, A-4	0-5	0-8	70-95	60-92	35-85
	10-18	Fine sandy loam, gravelly loam, sandy loam	CL-ML, ML, SM	A-1, A-2, A-4	0-5	0-8	70-95	60-92	35-85
	18-30	Gravelly fine sandy loam, gravelly sandy loam, loam	SM	A-4, A-1, A-2	0-5	0-8	70-95	60-92	35-85
	30-60	Gravelly sandy loam, gravelly fine sandy loam, loam	SM	A-1, A-2, A-4	0-5	0-8	70-95	60-92	35-85
90B:									
Palatine--------	0-7	Silt loam	OL, ML	A-6, A-7, A-4	0	0-5	65-100	50-100	40-100
	7-20	Parachannery silt loam, channery silt loam, very channery loam	CL, GM, ML	A-4, A-6	0	0-10	50-100	35-100	25-100
	20-30	Parachannery silt loam, channery silt loam, very channery loam	GM, GC-GM	A-4, A-6	0	0-10	50-100	35-100	25-100
	30-38	Very channery silt loam, very channery loam	GM, GC-GM	A-2, A-6	0	0-15	40-75	25-50	20-50
	38-48	Unweathered bedrock			---	---	---	---	---
90C:									
Palatine--------	0-7	Silt loam	ML, OL	A-4, A-6, A-7	0	0-5	65-100	50-100	40-100
	7-20	Parachannery silt loam, channery silt loam, very channery loam	CL, GM, ML	A-4, A-6	0	0-10	50-100	35-100	25-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
	20-30	Parachannery silt loam, channery silt loam, very channery loam	GC-GM, GM	A-4, A-6	0	0-10	50-100	35-100	25-100
	30-38	Very channery silt loam, very channery loam	GM, GC-GM	A-2, A-6	0	0-15	40-75	25-50	20-50
	38-48	Unweathered bedrock			---	---	---	---	---
90D: Palatine--------	0-7	Silt loam	ML, OL	A-4, A-6, A-7	0	0-5	65-100	50-100	40-100
	7-20	Parachannery silt loam, channery silt loam, very channery loam	CL, GM, ML	A-4, A-6	0	0-10	50-100	35-100	25-100
	20-30	Parachannery silt loam, channery silt loam, very channery loam	GC-GM, GM	A-4, A-6	0	0-10	50-100	35-100	25-100
	30-38	Very channery silt loam, very channery loam	GM, GC-GM	A-2, A-6	0	0-15	40-75	25-50	20-50
	38-48	Unweathered bedrock			---	---	---	---	---
94B: Paxton----------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	65-100	50-100	40-100
	1-6	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-10	65-95	50-92	30-85
	6-15	Sandy loam, gravelly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-10	65-95	50-92	30-85
	15-25	Sandy loam, gravelly fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-10	65-95	50-92	30-85
	25-31	Sandy loam, gravelly fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-10	65-95	50-92	30-85
	31-63	Sandy loam, gravelly fine sandy loam, loam	SM, ML, GM	A-2, A-1, A-4	0-5	0-15	65-95	50-92	30-85
	63-80	Loam, gravelly fine sandy loam, sandy loam	SM, ML, GM	A-2, A-1, A-4	0-5	0-15	65-95	50-92	30-85
94C: Paxton----------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	65-100	50-100	40-100
	1-6	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-10	65-95	50-92	30-85
	6-15	Sandy loam, gravelly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-10	65-95	50-92	30-85
	15-25	Sandy loam, gravelly fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-10	65-95	50-92	30-85
	25-31	Sandy loam, gravelly fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-10	65-95	50-92	30-85
	31-63	Sandy loam, gravelly fine sandy loam, loam	SM, ML, GM	A-2, A-1, A-4	0-5	0-15	65-95	50-92	30-85

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi[ng] sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	63-80	Loam, gravelly fine sandy loam, sandy loam	SM, ML, GM	A-2, A-1, A-4	0-5	0-15	65-95	50-92	30-85
94D:									
Paxton----------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	65-100	50-100	40-100
	1-6	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-10	65-95	50-92	30-85
	6-15	Sandy loam, gravelly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-10	65-95	50-92	30-85
	15-25	Sandy loam, gravelly fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-10	65-95	50-92	30-85
	25-31	Sandy loam, gravelly fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-10	65-95	50-92	30-85
	31-63	Sandy loam, gravelly fine sandy loam, loam	SM, ML, GM	A-2, A-1, A-4	0-5	0-15	65-95	50-92	30-85
	63-80	Loam, gravelly fine sandy loam, sandy loam	SM, ML, GM	A-2, A-1, A-4	0-5	0-15	65-95	50-92	30-85
95B:									
Woodbridge------	0-5	Loam	ML, SM	A-4, A-2	0-1	0-10	65-95	50-92	30-85
	5-16	Loam, fine sandy loam, gravelly sandy loam	ML, SM	A-4, A-2	0-1	0-10	65-95	50-92	30-85
	16-26	Fine sandy loam, loam, gravelly sandy loam	GM, ML, SM	A-2, A-4	0-1	0-10	65-95	50-92	30-80
	26-72	Sandy loam, gravelly fine sandy loam, loam	GM, SM, ML	A-1, A-2, A-4	0-5	0-15	65-95	50-92	30-80
96B:									
Ridgebury-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-7	70-100	60-100	40-100
	1-7	Loam	ML, SM	A-4, A-2	0-5	0-7	70-95	60-92	35-80
	7-13	Loam, fine sandy loam, gravelly sandy loam	GM, ML, SM	A-2, A-4	0-5	0-7	70-95	60-92	35-80
	13-21	Fine sandy loam, loam, gravelly sandy loam	SM, ML, GM	A-2, A-4	0-5	0-7	70-95	60-92	35-80
	21-28	Gravelly fine sandy loam, loam, sandy loam	SM, ML, GM	A-1, A-2, A-4	0-5	0-7	70-95	60-92	35-80
	28-60	Loam, fine sandy loam, gravelly sandy loam	ML, GM, SM	A-1, A-2, A-4	0-5	0-7	70-95	60-92	35-80

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
99A: Timakwa, undrained------	0-2	Mucky peat	PT	A-8	0	0	---	---	---
	2-10	Muck	PT	A-8	0	0	---	---	---
	10-18	Muck	PT	A-8	0	0	---	---	---
	18-20	Mucky peat, muck	PT	A-8	0	0	---	---	---
	20-25	Loamy fine sand, loamy sand, sand	SP-SM, SP, SM	A-2, A-1	0-2	0-10	65-100	45-100	30-80
	25-60	Loamy sand, sand, coarse sand	SM, SP, SP-SM	A-1, A-2	0-2	0-10	65-100	45-100	30-80
109A: Catden, undrained------	0-3	Muck	PT	A-8	0	0-30	---	---	---
	3-9	Mucky peat	PT	A-8	0	0-30	---	---	---
	9-22	Muck	PT	A-8	0	0-30	---	---	---
	22-31	Muck	PT	A-8	0	0-30	---	---	---
	31-42	Muck	PT	A-8	0	0-30	---	---	---
	42-56	Muck	PT	A-8	0	0-30	---	---	---
	56-65	Mucky peat, muck	PT	A-8	0	0-30	---	---	---
	65-78	Mucky peat, muck	PT	A-8	0	0-30	---	---	---
	78-88	Loamy sand, fine sandy loam, silty clay loam	SM, SP-SM	A-1, A-2	0-2	0-10	65-100	45-100	20-95
112A: Scio------------	0-9	Silt loam	ML	A-4	0	0	95-100	92-100	70-100
	9-18	Silt loam, very fine sandy loam	ML	A-4	0	0	95-100	92-100	75-100
	18-30	Silt loam, very fine sandy loam	ML	A-4	0	0	95-100	92-100	75-100
	30-37	Silt loam, very fine sandy loam, stratified silt loam to very fine sandy loam, fine sandy loam	ML, SM	A-4	0	0	95-100	92-100	70-100
	37-52	Silt loam, very fine sandy loam, stratified silt loam to very fine sandy loam, stratified very gravelly sand	SP, SM, ML, GP-GM	A-1, A-2, A-3, A-4	0	0-15	40-100	30-100	15-100
	52-80	Stratified silt loam to very fine sandy loam, silt loam, very fine sandy loam, stratified very gravelly sand to silt loam	SP, ML, SM, GP-GM	A-1, A-2, A-3, A-4	0	0-15	40-100	30-100	15-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
Urban land------	0-4	Variable			0	0	---	---	---
	4-10	Gravelly sandy loam, extremely gravelly loamy sand, very gravelly fine sandy loam	GM, SM, ML	A-1, A-2, A-4	0-1	0-10	35-100	15-100	5-85
	10-22	Silt loam, very fine sandy loam, gravelly sandy loam	ML, CL-ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100
	22-26	Silt loam, very fine sandy loam, gravelly sandy loam	ML, CL-ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100
	26-60	Silt loam, very fine sandy loam, gravelly sandy loam, silty clay loam	ML, CL-ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100
114B:									
Windsor---------	0-2	Moderately decomposed plant material	PT	A-8	0	0	95-100	92-100	80-100
	2-11	Loamy sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	11-21	Loamy sand, loamy fine sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	21-25	Sand, loamy sand, loamy fine sand	SM, SP-SM	A-1, A-3, A-2	0	0	95-100	92-100	45-80
	25-72	Sand, fine sand, loamy sand	SP-SM, SP, SW-SM	A-1, A-2, A-3	0	0	95-100	92-100	40-80
Urban land------	0-4	Variable			0	0	---	---	---
	4-10	Gravelly sandy loam, extremely gravelly loamy sand, very gravelly fine sandy loam	GM, SM, ML	A-1, A-2, A-4	0-1	0-10	35-100	15-100	5-85
	10-22	Silt loam, very fine sandy loam, gravelly sandy loam	ML, CL-ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100
	22-26	Silt loam, very fine sandy loam, gravelly sandy loam	ML, CL-ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100
	26-60	Silt loam, very fine sandy loam, gravelly sandy loam, silty clay loam	ML, CL-ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
114C:									
Windsor---------	0-2	Moderately decomposed plant material	PT	A-8	0	0	95-100	92-100	80-100
	2-11	Loamy sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	11-21	Loamy sand, loamy fine sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	21-25	Sand, loamy sand, loamy fine sand	SP-SM, SM	A-1, A-3, A-2	0	0	95-100	92-100	45-80
	25-72	Sand, fine sand, loamy sand	SP, SP-SM, SW-SM	A-1, A-2, A-3	0	0	95-100	92-100	40-80
Urban land------	0-4	Variable			0	0	---	---	---
	4-10	Gravelly sandy loam, extremely gravelly loamy sand, very gravelly fine sandy loam	ML, SM, GM	A-1, A-2, A-4	0-1	0-10	35-100	15-100	5-85
	10-22	Silt loam, very fine sandy loam, gravelly sandy loam	ML, CL-ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100
	22-26	Silt loam, very fine sandy loam, gravelly sandy loam	CL-ML, ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100
	26-60	Silt loam, very fine sandy loam, gravelly sandy loam, silty clay loam	CL-ML, ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100
114D:									
Windsor---------	0-2	Moderately decomposed plant material	PT	A-8	0	0	95-100	92-100	80-100
	2-11	Loamy sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	11-21	Loamy sand, loamy fine sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	21-25	Sand, loamy sand, loamy fine sand	SP-SM, SM	A-1, A-3, A-2	0	0	95-100	92-100	45-80
	25-72	Sand, fine sand, loamy sand	SW-SM, SP-SM, SP	A-1, A-2, A-3	0	0	95-100	92-100	40-80
Urban land------	0-4	Variable			0	0	---	---	---
	4-10	Gravelly sandy loam, extremely gravelly loamy sand, very gravelly fine sandy loam	ML, SM, GM	A-1, A-2, A-4	0-1	0-10	35-100	15-100	5-85

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	10-22	Silt loam, very fine sandy loam, gravelly sandy loam	ML, CL-ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100
	22-26	Silt loam, very fine sandy loam, gravelly sandy loam	ML, CL-ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100
	26-60	Silt loam, very fine sandy loam, gravelly sandy loam, silty clay loam	ML, CL-ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100
115B: Udipsamments, smoothed-------	0-4	Loamy sand	SM	A-1, A-2	0	0-15	65-100	50-100	25-80
	4-13	Gravelly loamy sand, sand, fine sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0-15	65-100	50-100	25-80
	13-32	Gravelly sand, fine sand, loamy sand	SP-SM, SP, SM	A-1, A-2, A-3	0	0-15	65-100	50-100	25-80
	32-37	Fine sand, sand, gravelly sand, loamy sand	SP-SM, SM, SP	A-1, A-2, A-3	0	0-15	65-100	50-100	25-80
	37-60	Fine sand, sand, gravelly sand, loamy sand	SP-SM, SP, SM	A-1, A-2, A-3	0	0-15	65-100	50-100	25-80
116: Urban land------	0-4	Variable			0	0	---	---	---
	4-10	Gravelly sandy loam, extremely gravelly loamy sand, very gravelly fine sandy loam	GM, ML, SM	A-1, A-2, A-4	0-1	0-10	35-100	15-100	5-85
	10-22	Silt loam, very fine sandy loam, gravelly sandy loam	ML, CL-ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100
	22-26	Silt loam, very fine sandy loam, gravelly sandy loam	CL-ML, ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100
	26-60	Silt loam, very fine sandy loam, gravelly sandy loam, silty clay loam	CL-ML, ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments >10 inches	Fragments 3-10 inches	Percentage passing sieve number-- 4	10	40
	In				Pct	Pct			
117B: Broadalbin, moderately well drained--------	0-9	Fine sandy loam	SM, ML, CL	A-2, A-4	0-3	0-5	70-100	50-98	40-95
	9-17	Fine sandy loam, loam, gravelly silt loam	SM, ML, CL	A-2, A-4	0-3	0-5	70-100	50-98	40-95
	17-22	Fine sandy loam, silt loam, gravelly loam	ML, CL-ML, SM, CL	A-2, A-4	0-3	0-5	70-100	50-98	35-95
	22-36	Fine sandy loam, loam, gravelly sandy loam	GM, ML, SM, SC	A-2, A-4	0-3	0-10	65-96	50-95	30-85
	36-54	Loam, very gravelly sandy loam, gravelly fine sandy loam	GC-GM, CL	A-2, A-4	0-3	1-10	50-94	35-85	20-75
	54-69	Gravelly fine sandy loam, very gravelly loam, sandy loam	SC, GC-GM	A-2, A-4	0-3	1-10	50-94	35-85	20-75
	69-80	Gravelly loam, very gravelly sandy loam, fine sandy loam	GC-GM, SC	A-2, A-4	0-3	1-10	50-94	35-85	20-75
Urban land------	0-4	Variable			0	0	---	---	---
	4-10	Gravelly sandy loam, extremely gravelly loamy sand, very gravelly fine sandy loam	SM, GM, ML	A-1, A-2, A-4	0-1	0-10	35-100	15-100	5-85
	10-22	Silt loam, very fine sandy loam, gravelly sandy loam	ML, CL-ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100
	22-26	Silt loam, very fine sandy loam, gravelly sandy loam	ML, CL-ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100
	26-60	Silt loam, very fine sandy loam, gravelly sandy loam, silty clay loam	ML, CL-ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100
117C: Broadalbin, well drained--------	0-9	Fine sandy loam	SM, ML, CL	A-2, A-4	0-3	0-5	70-100	50-98	40-95
	9-17	Fine sandy loam, loam, gravelly silt loam	ML, SM, CL	A-2, A-4	0-3	0-5	70-100	50-98	40-95
	17-22	Fine sandy loam, silt loam, gravelly loam	CL-ML, ML, SM, CL	A-2, A-4	0-3	0-5	70-100	50-98	35-95
	22-36	Fine sandy loam, loam, gravelly sandy loam	SC, SM, ML, GM	A-2, A-4	0-3	0-10	65-96	50-95	30-85

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	36-54	Loam, very gravelly sandy loam, gravelly fine sandy loam	CL, GC-GM	A-2, A-4	0-3	1-10	50-94	35-85	20-75
	54-69	Gravelly fine sandy loam, very gravelly loam, sandy loam	GC-GM, SC	A-2, A-4	0-3	1-10	50-94	35-85	20-75
	69-80	Fine sandy loam, very gravelly sandy loam, gravelly loam	GC-GM, SC	A-2, A-4	0-3	1-10	50-94	35-85	20-75
Urban land------	0-4	Variable			0	0	---	---	---
	4-10	Gravelly sandy loam, extremely gravelly loamy sand, very gravelly fine sandy loam	GM, ML, SM	A-1, A-2, A-4	0-1	0-10	35-100	15-100	5-85
	10-22	Silt loam, very fine sandy loam, gravelly sandy loam	CL-ML, ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100
	22-26	Silt loam, very fine sandy loam, gravelly sandy loam	ML, CL-ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100
	26-60	Silt loam, very fine sandy loam, gravelly sandy loam, silty clay loam	CL-ML, ML	A-2, A-4	0-1	0-10	35-100	15-100	5-100
130B: Hudson----------	0-6	Silty clay loam	CL, OL, ML	A-4, A-6, A-7	0	0-2	85-100	75-100	60-100
	6-11	Silty clay loam, silt loam, loam	ML, CL, OL	A-4, A-6, A-7	0	0-2	85-100	75-100	60-100
	11-18	Silty clay loam, silt loam, silty clay	CH, CL	A-6, A-7	0	0-3	85-100	75-100	60-100
	18-32	Silty clay loam, silty clay	CH, CL	A-6, A-7	0	0-2	95-100	85-100	70-100
	32-60	Silty clay loam, silty clay, silt loam	CH, CL	A-6, A-7	0	0-2	95-100	85-100	70-100
130C: Hudson----------	0-6	Silty clay loam	CL, ML, OL	A-4, A-6, A-7	0	0-2	85-100	75-100	60-100
	6-11	Silty clay loam, silt loam, loam	CL, ML, OL	A-4, A-6, A-7	0	0-2	85-100	75-100	60-100
	11-18	Silty clay loam, silt loam, silty clay	CH, CL	A-6, A-7	0	0-3	85-100	75-100	60-100
	18-32	Silty clay loam, silty clay	CL, CH	A-6, A-7	0	0-2	95-100	85-100	70-100
	32-60	Silty clay loam, silty clay, silt loam	CL, CH	A-6, A-7	0	0-2	95-100	85-100	70-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
134A:									
Rhinebeck-------	0-9	Silty clay loam	MH, ML, CL	A-6, A-7	0	0	85-100	75-100	65-100
	9-13	Silty clay loam, silty clay, silt loam	CL	A-6, A-7	0	0	92-100	85-100	70-100
	13-27	Silty clay, silty clay loam	CL	A-6, A-7	0	0	92-100	85-100	75-100
	27-34	Stratified silty clay loam to silt loam, silty clay loam, silt loam, clay	ML, CL, CL-ML	A-6, A-4	0	0	92-100	85-100	70-100
	34-37	Silt loam, stratified silt loam to silty clay loam, silty clay loam, clay	CL, CL-ML, ML	A-6, A-4	0	0	92-100	85-100	70-100
	37-72	Stratified silt loam to silty clay loam, silty clay loam, silt loam, clay	CL, CL-ML, ML	A-6, A-4	0	0	92-100	85-100	70-100
134B:									
Rhinebeck-------	0-9	Silty clay loam	MH, ML, CL	A-6, A-7	0	0	85-100	75-100	65-100
	9-13	Silty clay loam, silty clay, silt loam	CL	A-6, A-7	0	0	92-100	85-100	70-100
	13-27	Silty clay, silty clay loam	CL	A-6, A-7	0	0	92-100	85-100	75-100
	27-34	Stratified silty clay loam to silt loam, silty clay loam, silt loam, clay	ML, CL-ML, CL	A-6, A-4	0	0	92-100	85-100	70-100
	34-37	Silt loam, stratified silt loam to silty clay loam, silty clay loam, clay	ML, CL-ML, CL	A-6, A-4	0	0	92-100	85-100	70-100
	37-72	Stratified silt loam to silty clay loam, silty clay loam, silt loam, clay	ML, CL, CL-ML	A-6, A-4	0	0	92-100	85-100	70-100
135A:									
Churchville-----	0-7	Silty clay loam	CL, MH, ML	A-7	0	0	92-100	85-100	65-100
	7-11	Silty clay loam, silty clay, clay loam	CL	A-7, A-6	0	0	92-100	85-100	65-100
	11-20	Silty clay loam, silty clay, clay loam	CL	A-7, A-6	0	0	92-100	85-100	70-100
	20-25	Silty clay loam, silty clay, clay loam	CL	A-7, A-6	0	0	92-100	85-100	70-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	25-41	Gravelly loam, gravelly fine sandy loam, silty clay loam	SC-SM, SC	A-2, A-4	0-5	0-15	65-92	50-85	45-80
	41-80	Gravelly loam, gravelly fine sandy loam, silty clay loam	SC, SC-SM	A-2, A-4	0-5	0-15	65-92	50-85	45-80
135B:									
Churchville-----	0-7	Silty clay loam	MH, ML, CL	A-7	0	0	92-100	85-100	65-100
	7-11	Silty clay loam, silty clay, clay loam	CL	A-7, A-6	0	0	92-100	85-100	65-100
	11-20	Silty clay loam, silty clay, clay loam	CL	A-7, A-6	0	0	92-100	85-100	70-100
	20-25	Silty clay loam, silty clay, clay loam	CL	A-7, A-6	0	0	92-100	85-100	70-100
	25-41	Gravelly loam, gravelly fine sandy loam, silty clay loam	SC, SC-SM	A-2, A-4	0-5	0-15	65-92	50-85	45-80
	41-80	Gravelly loam, gravelly fine sandy loam, silty clay loam	SC-SM, SC	A-2, A-4	0-5	0-15	65-92	50-85	45-80
137A:									
Madalin---------	0-7	Silty clay loam	CL, ML	A-6, A-7	0	0	96-100	96-100	80-100
	7-12	Silty clay, clay, silty clay loam	CL, CH	A-6, A-7	0	0	96-100	96-100	85-100
	12-18	Silty clay, clay, silty clay loam	CL, CH	A-6, A-7	0	0	96-100	96-100	85-100
	18-30	Silty clay, clay, silty clay loam	CH, CL	A-6, A-7	0	0	96-100	96-100	85-100
	30-46	Silty clay loam, silty clay, clay	CL, CH	A-6, A-7	0	0	75-100	70-100	65-100
	46-72	Silty clay loam, silty clay, clay	CL, CH	A-6, A-7	0	0	75-100	70-100	65-100
151B:									
Unadilla--------	0-9	Silt loam	CL-ML, ML	A-4	0	0	100	92-100	75-100
	9-16	Silt loam, very fine sandy loam	ML, CL-ML	A-4	0	0	100	92-100	75-100
	16-24	Silt loam, very fine sandy loam	ML, CL-ML	A-4	0	0	100	92-100	75-100
	24-29	Silt loam, very fine sandy loam, loamy very fine sand	SM, ML	A-4, A-2, A-3, A-1	0	0-10	45-100	30-100	25-100
	29-33	Very fine sandy loam, silt loam, loamy very fine sand	ML, SM	A-4, A-2, A-3, A-1	0	0-10	45-100	30-100	25-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	33-72	Very fine sandy loam, silt loam, loamy very fine sand, very gravelly sand	ML, SM, GM	A-4, A-2, A-3, A-1	0	0-10	45-100	30-100	15-100
152A:									
Scio------------	0-9	Silt loam	ML	A-4	0	0	95-100	92-100	70-100
	9-18	Silt loam, very fine sandy loam	ML	A-4	0	0	95-100	92-100	75-100
	18-30	Silt loam, very fine sandy loam	ML	A-4	0	0	95-100	92-100	75-100
	30-37	Silt loam, very fine sandy loam, stratified silt loam to very fine sandy loam, fine sandy loam	ML, SM	A-4	0	0	95-100	92-100	70-100
	37-52	Silt loam, very fine sandy loam, stratified silt loam to very fine sandy loam, stratified very gravelly sand	SM, GP-GM, ML, SP	A-1, A-2, A-3, A-4	0	0-15	40-100	30-100	15-100
	52-80	Stratified silt loam to very fine sandy loam, silt loam, very fine sandy loam, stratified very gravelly sand to silt loam	GP-GM, ML, SM, SP	A-1, A-2, A-3, A-4	0	0-15	40-100	30-100	15-100
152B:									
Scio------------	0-9	Silt loam	ML	A-4	0	0	95-100	92-100	70-100
	9-18	Silt loam, very fine sandy loam	ML	A-4	0	0	95-100	92-100	75-100
	18-30	Silt loam, very fine sandy loam	ML	A-4	0	0	95-100	92-100	75-100
	30-37	Silt loam, very fine sandy loam, stratified silt loam to very fine sandy loam, fine sandy loam	ML, SM	A-4	0	0	95-100	92-100	70-100
	37-52	Silt loam, very fine sandy loam, stratified silt loam to very fine sandy loam, stratified very gravelly sand	GP-GM, ML, SM, SP	A-1, A-2, A-3, A-4	0	0-15	40-100	30-100	15-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments >10 inches	Fragments 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
	52-80	Stratified silt loam to very fine sandy loam, silt loam, very fine sandy loam, stratified very gravelly sand to silt loam	GP-GM, SM, ML, SP	A-1, A-2, A-3, A-4	0	0-15	40-100	30-100	15-100
154A:									
Tonawanda-------	0-9	Silt loam	ML, CL-ML	A-4	0	0	96-100	96-100	80-100
	9-16	Silt loam, very fine sandy loam	CL-ML, ML	A-4	0	0	96-100	96-100	80-100
	16-25	Silt loam, very fine sandy loam	CL-ML, ML	A-4	0	0	96-100	96-100	80-100
	25-34	Silt loam, very fine sandy loam, loamy very fine sand	ML, CL-ML	A-4	0	0	96-100	96-100	80-100
	34-52	Silt loam, stratified silt loam to very fine sandy loam, stratified fine sand to silty clay loam, fine sandy loam	ML, CL-ML	A-4	0	0	85-100	75-100	45-100
	52-80	Stratified silt loam to very fine sandy loam, silt loam, stratified fine sand to silty clay loam, fine sandy loam	CL-ML, ML	A-4	0	0	85-100	75-100	45-100
154B:									
Tonawanda-------	0-9	Silt loam	CL-ML, ML	A-4	0	0	96-100	96-100	80-100
	9-16	Silt loam, very fine sandy loam	ML, CL-ML	A-4	0	0	96-100	96-100	80-100
	16-25	Silt loam, very fine sandy loam	ML, CL-ML	A-4	0	0	96-100	96-100	80-100
	25-34	Silt loam, very fine sandy loam, loamy very fine sand	ML, CL-ML	A-4	0	0	96-100	96-100	80-100
	34-52	Silt loam, stratified silt loam to very fine sandy loam, stratified fine sand to silty clay loam, fine sandy loam	CL-ML, ML	A-4	0	0	85-100	75-100	45-100
	52-80	Stratified silt loam to very fine sandy loam, silt loam, stratified fine sand to silty clay loam, fine sandy loam	CL-ML, ML	A-4	0	0	85-100	75-100	45-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
157A:									
Birdsall--------	0-7	Mucky silt loam	CL-ML, ML, OL	A-4	0	0	100	95-100	85-100
	7-15	Silt loam, very fine sandy loam	CL-ML, ML	A-4	0	0	100	95-100	85-100
	15-22	Stratified very fine sandy loam to silt loam, silt loam	ML, CL-ML	A-4	0	0	100	95-100	85-100
	22-48	Stratified silt loam to very fine sandy loam, very fine sandy loam	ML, CL-ML	A-4	0	0	100	95-100	85-100
	48-60	Silt loam, very fine sandy loam, silty clay loam	CL-ML, ML	A-4	0	0	100	95-100	80-100
160A:									
Agawam----------	0-10	Fine sandy loam	ML, SM	A-4	0	0	95-100	85-100	65-95
	10-20	Fine sandy loam, very fine sandy loam, loam	SM, ML	A-2, A-4	0	0	75-100	60-100	45-95
	20-26	Fine sandy loam, very fine sandy loam	ML, SM	A-2, A-4	0	0	75-100	60-100	45-95
	26-34	Stratified fine sand to sand	SM, SP-SM	A-1, A-2, A-3	0	0-5	75-100	60-100	30-80
	34-42	Stratified fine sand to sand	SP-SM, SM	A-1, A-2, A-3	0	0-5	75-100	60-100	30-80
	42-62	Stratified fine sand	SM, SP-SM, GP-GM, GM	A-1, A-2, A-3	0	0-5	40-100	25-100	15-80
160B:									
Agawam----------	0-10	Fine sandy loam	SM, ML	A-4	0	0	95-100	85-100	65-95
	10-20	Fine sandy loam, very fine sandy loam, loam	ML, SM	A-2, A-4	0	0	75-100	60-100	45-95
	20-26	Fine sandy loam, very fine sandy loam	ML, SM	A-2, A-4	0	0	75-100	60-100	45-95
	26-34	Stratified fine sand to sand	SP-SM, SM	A-1, A-2, A-3	0	0-5	75-100	60-100	30-80
	34-42	Stratified fine sand to sand	SP-SM, SM	A-1, A-2, A-3	0	0-5	75-100	60-100	30-80
	42-62	Stratified fine sand	GM, GP-GM, SP-SM, SM	A-1, A-2, A-3	0	0-5	40-100	25-100	15-80
162B:									
Ninigret--------	0-2	Moderately decomposed plant material	PT	A-8	0	0	85-100	75-100	70-100
	2-4	Loam	SM, ML	A-2, A-4	0	0	85-100	75-100	55-95
	4-12	Loam, fine sandy loam, very fine sandy loam	ML, SM	A-2, A-4	0	0	85-100	75-100	55-95

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	12-18	Loam, fine sandy loam, very fine sandy loam	ML, SM	A-2, A-4	0	0	85-100	75-100	55-95
	18-25	Fine sandy loam, very fine sandy loam, loam	ML, SM	A-2, A-4	0	0	85-100	75-100	55-95
	25-35	Loamy sand, sand, fine sand, stratified very gravelly coarse sand to loamy fine sand	SM, SP	A-1, A-2, A-3	0	0-5	70-100	55-100	25-75
	35-50	Sand, loamy sand, fine sand, stratified very gravelly coarse sand to loamy fine sand	SP-SM, SW-SM, SM	A-1, A-2, A-3	0	0-15	40-100	25-100	10-75
	50-62	Fine sand, sand, loamy sand, stratified very gravelly coarse sand to loamy fine sand	SP-SM, SW-SM, SM	A-1, A-2, A-3	0	0-15	40-100	25-100	10-75
165A: Stafford--------	0-5	Loamy fine sand	SM	A-2, A-4	0	0	100	95-100	60-85
	5-10	Loamy fine sand, fine sand, fine sandy loam	SM	A-2, A-4	0	0	100	95-100	60-85
	10-15	Loamy fine sand, fine sand, loamy sand	SM	A-2, A-1	0	0	100	95-100	45-80
	15-28	Fine sand, loamy fine sand, loamy sand	SM	A-1, A-2	0	0	100	95-100	45-80
	28-50	Stratified fine sand to sand, sand	SP-SM, SM	A-1, A-2, A-3	0	0	100	75-100	25-80
	50-65	Stratified fine sand to sand, sand	SP-SM, SM	A-1, A-2, A-3	0	0	100	75-100	25-80
170B: Windsor---------	0-2	Moderately decomposed plant material	PT	A-8	0	0	95-100	92-100	80-100
	2-11	Loamy sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	11-21	Loamy sand, loamy fine sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	21-25	Sand, loamy sand, loamy fine sand	SP-SM, SM	A-1, A-3, A-2	0	0	95-100	92-100	45-80
	25-72	Sand, fine sand, loamy sand	SW-SM, SP, SP-SM	A-1, A-2, A-3	0	0	95-100	92-100	40-80

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
170C:									
Windsor---------	0-2	Moderately decomposed plant material	PT	A-8	0	0	95-100	92-100	80-100
	2-11	Loamy sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	11-21	Loamy sand, loamy fine sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	21-25	Sand, loamy sand, loamy fine sand	SP-SM, SM	A-1, A-3, A-2	0	0	95-100	92-100	45-80
	25-72	Sand, fine sand, loamy sand	SW-SM, SP, SP-SM	A-1, A-2, A-3	0	0	95-100	92-100	40-80
170D:									
Windsor---------	0-2	Moderately decomposed plant material	PT	A-8	0	0	95-100	92-100	80-100
	2-11	Loamy sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	11-21	Loamy sand, loamy fine sand	SM	A-1, A-2	0	0	95-100	92-100	45-80
	21-25	Sand, loamy sand, loamy fine sand	SM, SP-SM	A-1, A-3, A-2	0	0	95-100	92-100	45-80
	25-72	Sand, fine sand, loamy sand	SP-SM, SW-SM, SP	A-1, A-2, A-3	0	0	95-100	92-100	40-80
179A:									
Scarboro--------	0-8	Muck	PT	A-8	0	0-5	90-100	85-100	50-100
	8-11	Loamy sand, sand, loamy fine sand, fine sandy loam	SM, SP-SM	A-1, A-2, A-3	0	0-5	90-100	85-100	40-85
	11-24	Sand, loamy sand, loamy fine sand	SP-SM, SM	A-1, A-2, A-3	0	0-5	90-100	85-100	40-75
	24-45	Sand, loamy sand, coarse sand	SP-SM, SP, SM	A-1, A-2, A-3	0	0	50-100	35-100	15-75
	45-64	Fine sand, sand, coarse sand, loamy sand	SP, SM, SP-SM	A-1, A-2, A-3	0	0	50-100	35-100	15-75
182A:									
Elmridge--------	0-11	Fine sandy loam	SM, ML	A-2, A-4	0	0	100	92-100	60-90
	11-20	Fine sandy loam, sandy loam	ML, SM	A-2, A-4	0	0	100	92-100	60-90
	20-25	Fine sandy loam, sandy loam, loam	SM, ML	A-2, A-4	0	0	100	92-100	60-90
	25-34	Silty clay, silty clay loam, clay	CL	A-6, A-7	0	0	100	96-100	90-100
	34-60	Stratified silty clay to silty clay loam, silty clay loam, clay	CL	A-6, A-7	0	0	100	96-100	90-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passin sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
182B:									
Elmridge--------	0-11	Fine sandy loam	ML, SM	A-2, A-4	0	0	100	92-100	60-90
	11-20	Fine sandy loam, sandy loam	ML, SM	A-2, A-4	0	0	100	92-100	60-90
	20-25	Fine sandy loam, sandy loam, loam	ML, SM	A-2, A-4	0	0	100	92-100	60-90
	25-34	Silty clay, silty clay loam, clay	CL	A-6, A-7	0	0	100	96-100	90-100
	34-60	Stratified silty clay to silty clay loam, silty clay loam, clay	CL	A-6, A-7	0	0	100	96-100	90-100
187A:									
Aeric Epiaquepts, somewhat poorly drained--------	0-1	Moderately decomposed plant material	PT	A-8	0	0	100	100	100
	1-4	Loam	ML	A-4	0	0	100	92-100	65-95
	4-8	Very fine sandy loam, loam, fine sandy loam, sandy loam	ML, SM	A-4, A-2	0	0	100	92-100	65-95
	8-13	Very fine sandy loam, loam, fine sandy loam, sandy loam	ML, SM	A-4, A-2	0	0	100	92-100	65-95
	13-33	Very fine sandy loam, loam, fine sandy loam, sandy loam	ML, SM	A-4, A-2	0	0	100	92-100	65-95
	33-45	Silty clay, clay, silty clay loam, stratified clay to silt loam	CH, CL	A-6, A-7	0	0	100	95-100	80-100
	45-60	Silty clay, clay, silty clay loam, stratified clay to silt loam	CH, CL	A-6, A-7	0	0	100	95-100	80-100
Aeric Epiaquepts, poorly drained-	0-1	Moderately decomposed plant material	PT	A-8	0	0	100	100	100
	1-4	Loam	ML	A-4	0	0	100	92-100	65-95
	4-8	Very fine sandy loam, loam, fine sandy loam, sandy loam	ML, SM	A-4, A-2	0	0	100	92-100	65-95
	8-13	Very fine sandy loam, loam, fine sandy loam, sandy loam	ML, SM	A-4, A-2	0	0	100	92-100	65-95

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
	13-33	Very fine sandy loam, loam, fine sandy loam, sandy loam	ML, SM	A-4, A-2	0	0	100	92-100	65-95
	33-45	Silty clay, clay, silty clay loam, stratified clay to silt loam	CH, CL	A-6, A-7	0	0	100	95-100	80-100
	45-60	Silty clay, clay, silty clay loam, stratified clay to silt loam	CH, CL	A-6, A-7	0	0	100	95-100	80-100
189A: Cheektowaga-----	0-12	Mucky very fine sandy loam	CL-ML, SM	A-4	0	0	100	95-100	50-95
	12-15	Loamy sand, loamy fine sand, fine sand, sand	SM, SP-SM, SW-SM	A-2, A-4	0	0	100	95-100	50-75
	15-21	Loamy fine sand, loamy sand, fine sand, sand	SM, SP-SM, SW-SM	A-2, A-4	0	0	100	95-100	50-75
	21-38	Clay, silty clay, silty clay loam	CH, CL	A-6, A-7	0	0	100	92-100	90-100
	38-72	Silty clay, clay, silty clay loam	CL, CH	A-6, A-7	0	0	100	92-100	90-100
197A: Fredon, somewhat poorly drained-	0-9	Loam	SM, SC, ML, CL	A-2, A-4	0	0-10	65-100	50-96	35-95
	9-18	Fine sandy loam, gravelly loam, silt loam	SM, ML, SC-SM	A-1, A-2, A-4	0	0-10	65-100	50-96	35-95
	18-26	Fine sandy loam, gravelly loam, silt loam	SM, ML, SC-SM	A-1, A-2, A-4	0	0-10	65-100	50-96	35-95
	26-65	Stratified very gravelly loamy sand to very gravelly sand, silty clay	SP, GM, GW-GM, GP	A-1, A-2	0	0-15	40-100	25-85	10-75
201B: Alton-----------	0-5	Gravelly loam	ML, GP-GM, GM, SM	A-2, A-4	0	0-10	50-92	35-85	15-70
	5-8	Gravelly loam, very gravelly sandy loam, fine sandy loam	GM, SM	A-2, A-4	0	0-15	50-92	35-85	15-70
	8-15	Gravelly loam, very gravelly sandy loam, gravelly sandy loam	SM, GM	A-2, A-4, A-1	0	0-20	50-92	35-85	15-70

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	15-19	Gravelly loam, very gravelly sandy loam, gravelly sandy loam	GM, SM	A-1, A-2, A-4	0	0-20	50-92	35-85	15-65
	19-25	Gravelly fine sandy loam, very gravelly sandy loam, gravelly coarse sandy loam	SM, GM	A-1, A-2	0	0-25	45-70	30-50	15-45
	25-42	Very gravelly sandy loam, very gravelly loamy sand, sand	SP-SM, GW, SM, SW-SM, GW-GM	A-1	0	0-25	45-70	30-50	15-35
	42-46	Very gravelly sandy loam, very gravelly loamy sand, sand	SP-SM, SP, SW-SM, GW-GM, GW	A-1	0	0-25	45-100	30-100	15-60
	46-72	Very gravelly sand, very gravelly loamy sand	GP, SM, SW, SW-SM, GW-GM	A-1	0	0-25	45-100	30-100	15-60
201C: Alton-----------	0-5	Gravelly loam	SM, ML, GP-GM, GM	A-2, A-4	0	0-10	50-92	35-85	15-70
	5-8	Gravelly loam, very gravelly sandy loam, fine sandy loam	GM, SM	A-2, A-4	0	0-15	50-92	35-85	15-70
	8-15	Gravelly loam, very gravelly sandy loam, gravelly sandy loam	SM, GM	A-2, A-4, A-1	0	0-20	50-92	35-85	15-70
	15-19	Gravelly loam, very gravelly sandy loam, gravelly sandy loam	SM, GM	A-1, A-2, A-4	0	0-20	50-92	35-85	15-65
	19-25	Gravelly fine sandy loam, very gravelly sandy loam, gravelly coarse sandy loam	GM, SM	A-1, A-2	0	0-25	45-70	30-50	15-45
	25-42	Very gravelly sandy loam, very gravelly loamy sand, sand	GW, SM, GW-GM, SW-SM, SP-SM	A-1	0	0-25	45-70	30-50	15-35
	42-46	Very gravelly sandy loam, very gravelly loamy sand, sand	SW-SM, SP, SP-SM, GW, GW-GM	A-1	0	0-25	45-100	30-100	15-60
	46-72	Very gravelly sand, very gravelly loamy sand	GP, SM, SW, SW-SM, GW-GM	A-1	0	0-25	45-100	30-100	15-60
201D: Alton-----------	0-5	Gravelly loam	ML, GP-GM, GM, SM	A-2, A-4	0	0-10	50-92	35-85	15-70
	5-8	Gravelly loam, very gravelly sandy loam, fine sandy loam	SM, GM	A-2, A-4	0	0-15	50-92	35-85	15-70

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	8-15	Gravelly loam, very gravelly sandy loam, gravelly sandy loam	GM, SM	A-2, A-4, A-1	0	0-20	50-92	35-85	15-70
	15-19	Gravelly loam, very gravelly sandy loam, gravelly sandy loam	GM, SM	A-1, A-2, A-4	0	0-20	50-92	35-85	15-65
	19-25	Gravelly fine sandy loam, very gravelly sandy loam, gravelly coarse sandy loam	GM, SM	A-1, A-2	0	0-25	45-70	30-50	15-45
	25-42	Very gravelly sandy loam, very gravelly loamy sand, sand	GW, SM, SP-SM, SW-SM, GW-GM	A-1	0	0-25	45-70	30-50	15-35
	42-46	Very gravelly sandy loam, very gravelly loamy sand, sand	GW, SP-SM, SP, SW-SM, GW-GM	A-1	0	0-25	45-100	30-100	15-60
	46-72	Very gravelly sand, very gravelly loamy sand	GP, SM, SW, SW-SM, GW-GM	A-1	0	0-25	45-100	30-100	15-60
210A:									
Merrimac--------	0-2	Fine sandy loam	SM	A-2, A-4	0	0-5	85-96	70-92	40-85
	2-10	Fine sandy loam, gravelly sandy loam, very fine sandy loam	SM	A-2, A-4	0	0-5	85-96	70-92	40-85
	10-20	Sandy loam, gravelly fine sandy loam, very fine sandy loam	SM	A-2	0	0-5	85-96	70-92	40-85
	20-24	Sandy loam, gravelly fine sandy loam, very fine sandy loam	SM	A-2	0	0-5	85-95	70-92	40-85
	24-30	Loamy sand, gravelly sandy loam, gravelly coarse sandy loam	SM, SP-SM	A-1, A-2	0	0-10	70-96	55-92	25-65
	30-36	Stratified gravelly sand to loamy fine sand, stratified very gravelly coarse sand to sand	GP, SP, GP-GM, SP-SM	A-1	0	8-25	45-92	30-85	15-55
	36-72	Stratified gravelly sand to fine sandy loam, stratified very gravelly coarse sand to sand	GP, SP, GP-GM, SP-SM	A-1	0	8-25	45-92	30-85	15-55

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passin sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
210B:									
Merrimac--------	0-2	Fine sandy loam	SM	A-2, A-4	0	0-5	85-96	70-92	40-85
	2-10	Fine sandy loam, gravelly sandy loam, very fine sandy loam	SM	A-2, A-4	0	0-5	85-96	70-92	40-85
	10-20	Sandy loam, gravelly fine sandy loam, very fine sandy loam	SM	A-2	0	0-5	85-96	70-92	40-85
	20-24	Sandy loam, gravelly fine sandy loam, very fine sandy loam	SM	A-2	0	0-5	85-95	70-92	40-85
	24-30	Loamy sand, gravelly sandy loam, gravelly coarse sandy loam	SP-SM, SM	A-1, A-2	0	0-10	70-96	55-92	25-65
	30-36	Stratified gravelly sand to loamy fine sand, stratified very gravelly coarse sand to sand	GP, SP, SP-SM, GP-GM	A-1	0	8-25	45-92	30-85	15-55
	36-72	Stratified gravelly sand to fine sandy loam, stratified very gravelly coarse sand to sand	SP-SM, SP, GP-GM, GP	A-1	0	8-25	45-92	30-85	15-55
210C:									
Merrimac--------	0-2	Fine sandy loam	SM	A-2, A-4	0	0-5	85-96	70-92	40-85
	2-10	Fine sandy loam, gravelly sandy loam, very fine sandy loam	SM	A-2, A-4	0	0-5	85-96	70-92	40-85
	10-20	Sandy loam, gravelly fine sandy loam, very fine sandy loam	SM	A-2	0	0-5	85-96	70-92	40-85
	20-24	Sandy loam, gravelly fine sandy loam, very fine sandy loam	SM	A-2	0	0-5	85-95	70-92	40-85
	24-30	Loamy sand, gravelly sandy loam, gravelly coarse sandy loam	SM, SP-SM	A-1, A-2	0	0-10	70-96	55-92	25-65
	30-36	Stratified gravelly sand to loamy fine sand, stratified very gravelly coarse sand to sand	GP, GP-GM, SP, SP-SM	A-1	0	8-25	45-92	30-85	15-55

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	36-72	Stratified gravelly sand to fine sandy loam, stratified very gravelly coarse sand to sand	SP, GP-GM, GP, SP-SM	A-1	0	8-25	45-92	30-85	15-55
210D:									
Merrimac--------	0-2	Fine sandy loam	SM	A-2, A-4	0	0-5	85-96	70-92	40-85
	2-10	Fine sandy loam, gravelly sandy loam, very fine sandy loam	SM	A-2, A-4	0	0-5	85-96	70-92	40-85
	10-20	Sandy loam, gravelly fine sandy loam, very fine sandy loam	SM	A-2	0	0-5	85-96	70-92	40-85
	20-24	Sandy loam, gravelly fine sandy loam, very fine sandy loam	SM	A-2	0	0-5	85-95	70-92	40-85
	24-30	Loamy sand, gravelly sandy loam, gravelly coarse sandy loam	SP-SM, SM	A-1, A-2	0	0-10	70-96	55-92	25-65
	30-36	Stratified gravelly sand to loamy fine sand, stratified very gravelly coarse sand to sand	SP-SM, SP, GP-GM, GP	A-1	0	8-25	45-92	30-85	15-55
	36-72	Stratified gravelly sand to fine sandy loam, stratified very gravelly coarse sand to sand	GP, GP-GM, SP, SP-SM	A-1	0	8-25	45-92	30-85	15-55
211A:									
Burnt Vly-------	0-1	Peat	PT	A-8	0	0	100	100	90-100
	1-3	Mucky peat, muck	PT	A-8	0	0	100	100	90-100
	3-11	Muck	PT	A-8	0	0	100	100	90-100
	11-26	Muck	PT	A-8	0	0	100	100	90-100
	26-30	Muck	PT	A-8	0	0	100	100	90-100
	30-60	Loamy sand, gravelly sand, very gravelly very fine sand	SC-SM, SM, SP, GP	A-2, A-3, A-1	0	0-5	50-100	35-100	15-80
Humaquepts------	0-2	Moderately decomposed plant material	PT	A-8	0-1	0-10	65-100	50-100	30-100
	2-9	Mucky silt loam, fine sandy loam, gravelly loamy sand	OL, ML, CL-ML, SM	A-4, A-2, A-6	0-1	0-10	65-100	50-100	25-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
	9-20	Silt loam, loam, fine sandy loam, very gravelly loamy sand	CL-ML, ML, SM, GM	A-4, A-2, A-6	0-2	0-15	50-100	35-100	15-100
	20-23	Loam, silt loam, fine sandy loam, very gravelly loamy sand	ML, SM, GM, SP-SM	A-4, A-2, A-6, A-1	0-2	0-15	50-100	35-100	15-100
	23-60	Loamy sand, fine sandy loam, very gravelly loamy sand, silty clay loam	SM, ML, GM, SP-SM	A-2, A-1, A-4	0-2	0-15	50-100	35-100	15-100
Pleasant Lake---	0-2	Mucky peat	PT	A-8	0	0	100	100	90-100
	2-5	Muck, mucky peat	PT	A-8	0	0	100	100	90-100
	5-44	Muck	PT	A-8	0	0	100	100	90-100
	44-78	Muck	PT	A-8	0	0	100	100	90-100
	78-86	Muck	PT	A-8	0	0	100	100	90-100
212A:									
Hinckley--------	0-6	Gravelly loamy sand	GP-GM, SP-SM, GM, SM	A-1, A-2	0	0-10	50-95	35-92	15-75
	6-16	Gravelly loamy sand, loamy fine sand, very gravelly loamy coarse sand	GM, GP-GM, SM, SP-SM	A-1, A-2	0	0-25	50-95	35-92	15-65
	16-20	Very gravelly sand, gravelly loamy sand, loamy fine sand, very gravelly loamy coarse sand	GP-GM, SM, SP, SP-SM	A-1, A-2	0	0-25	45-95	35-92	15-65
	20-72	Stratified very gravelly sand	SP, GP, GP-GM, GW	A-1	0	7-30	40-92	30-85	10-50
212B:									
Hinckley--------	0-6	Gravelly loamy sand	GP-GM, SM, SP-SM, GM	A-1, A-2	0	0-10	50-95	35-92	15-75
	6-16	Gravelly loamy sand, loamy fine sand, very gravelly loamy coarse sand	SP-SM, SM, GP-GM, GM	A-1, A-2	0	0-25	50-95	35-92	15-65
	16-20	Very gravelly sand, gravelly loamy sand, loamy fine sand, very gravelly loamy coarse sand	SM, SP, SP-SM, GP-GM	A-1, A-2	0	0-25	45-95	35-92	15-65
	20-72	Stratified very gravelly sand	GP, GP-GM, GW, SP	A-1	0	7-30	40-92	30-85	10-50

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
212C:									
Hinckley--------	0-6	Gravelly loamy sand	SP-SM, SM, GP-GM, GM	A-1, A-2	0	0-10	50-95	35-92	15-75
	6-16	Gravelly loamy sand, loamy fine sand, very gravelly loamy coarse sand	SP-SM, GP-GM, GM, SM	A-1, A-2	0	0-25	50-95	35-92	15-65
	16-20	Very gravelly sand, gravelly loamy sand, loamy fine sand, very gravelly loamy coarse sand	GP-GM, SP-SM, SM, SP	A-1, A-2	0	0-25	45-95	35-92	15-65
	20-72	Stratified very gravelly sand	GP-GM, GP, SP, GW	A-1	0	7-30	40-92	30-85	10-50
232A:									
Teel------------	0-10	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	95-100	92-100	75-100
	10-16	Silt loam, very fine sandy loam	CL, CL-ML, ML	A-4, A-6	0	0	95-100	92-100	75-100
	16-32	Silt loam, very fine sandy loam	CL, CL-ML, ML	A-4, A-6	0	0	95-100	92-100	75-100
	32-40	Very fine sandy loam, silt loam, gravelly fine sandy loam	ML, CL, SC-SM, SM	A-2, A-4, A-6	0	0-5	75-100	70-100	50-100
	40-45	Very fine sandy loam, silt loam, stratified silty clay loam to very fine sandy loam to loamy sand, gravelly very fine sandy loam	SC-SM, CL, ML, SM	A-2, A-4, A-6	0	0-5	75-100	70-100	35-100
	45-56	Loamy sand, silt loam, very fine sandy loam, stratified silty clay loam to very fine sandy loam to loamy sand, gravelly very fine sandy loam	SM, CL, ML, SC-SM	A-2, A-4, A-6	0	0-5	75-100	70-100	35-100
	56-62	Stratified silty clay loam to very fine sandy loam to loamy sand, loamy sand, silt loam, gravelly very fine sandy loam	SM, ML, CL, SC-SM	A-2, A-4, A-6	0	0-5	75-100	70-100	35-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
244A:									
Darien----------	0-11	Silt loam	CL, ML	A-4, A-6	0	0-8	65-99	50-96	40-90
	11-14	Silt loam, channery clay loam, silty clay loam	SC, GC-GM, CL	A-6	0-1	0-8	65-99	50-96	40-90
	14-23	Channery clay loam, silty clay loam	SC, GC-GM, CL	A-6	0-2	0-8	65-99	50-96	45-90
	23-32	Silt loam, channery clay loam, silty clay loam	SC, GC-GM, CL	A-6	0-2	0-8	65-99	50-96	45-90
	32-60	Channery clay loam, very channery silty clay loam, loam	CL, GC-GM	A-6	0-5	0-15	45-92	30-85	25-80
244B:									
Darien----------	0-11	Silt loam	ML, CL	A-4, A-6	0	0-8	65-99	50-96	40-90
	11-14	Silt loam, channery clay loam, silty clay loam	SC, GC-GM, CL	A-6	0-1	0-8	65-99	50-96	40-90
	14-23	Channery clay loam, silty clay loam	CL, GC-GM, SC	A-6	0-2	0-8	65-99	50-96	45-90
	23-32	Silt loam, channery clay loam, silty clay loam	CL, GC-GM, SC	A-6	0-2	0-8	65-99	50-96	45-90
	32-60	Channery clay loam, very channery silty clay loam, loam	GC-GM, CL	A-6	0-5	0-15	45-92	30-85	25-80
363A:									
Adams-----------	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---
	2-3	Loamy sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	3-5	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	5-9	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	9-14	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	14-17	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	17-32	Sand, coarse sand, gravelly fine sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	32-58	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	58-72	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
363B:									
Adams-----------	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---
	2-3	Loamy sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	3-5	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	5-9	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	9-14	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	14-17	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	17-32	Sand, coarse sand, gravelly fine sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	32-58	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	58-72	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
363D:									
Adams-----------	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---
	2-3	Loamy sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	3-5	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	5-9	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	9-14	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	14-17	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	17-32	Sand, coarse sand, gravelly fine sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	32-58	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	58-72	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
363F:									
Adams-----------	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---
	2-3	Loamy sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	3-5	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	5-9	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	9-14	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	14-17	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	17-32	Sand, coarse sand, gravelly fine sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	32-58	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	58-72	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
365A:									
Naumburg--------	0-1	Highly decomposed plant material	PT	A-8	0	0	95-100	92-100	70-100
	1-5	Loamy fine sand	SM	A-2, A-4	0	0	95-100	92-100	50-85
	5-8	Loamy sand, loamy fine sand, fine sandy loam	SM	A-2, A-4	0	0	95-100	92-100	50-85
	8-10	Loamy sand, loamy fine sand, sand	SM, SW-SM, SP-SM	A-1, A-2	0	0	95-100	92-100	45-80
	10-16	Loamy fine sand, loamy sand, sand	SM, SP-SM, SW-SM	A-1, A-2	0	0	95-100	92-100	45-80
	16-19	Sand, loamy sand, loamy fine sand	SP-SM, SM, SW-SM	A-1, A-2, A-3	0	0	95-100	92-100	45-80
	19-72	Stratified sand, coarse sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2, A-3	0	0	95-100	92-100	45-80
Croghan---------	0-2	Moderately decomposed plant material	PT	A-8	0	0	100	100	50-100
	2-3	Fine sandy loam	SW-SM, SM, SP-SM	A-1, A-2, A-4	0	0	95-100	92-100	45-85
	3-5	Sand, loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2, A-4	0	0	85-100	75-100	40-80
	5-11	Sand, loamy sand, loamy fine sand	SM, SP-SM, SW-SM	A-1, A-2, A-4	0	0	85-100	75-100	40-80
	11-30	Sand, loamy sand, loamy fine sand	SM, SP-SM, SW-SM	A-1, A-2, A-3, A-4	0	0	85-100	75-100	40-80
	30-36	Loamy fine sand, loamy sand, coarse sand	SM, SP-SM, SW-SM	A-1, A-2, A-3	0	0	85-100	75-100	35-80
	36-60	Fine sand, sand, coarse sand	SP-SM, SM, SW-SM	A-1, A-2, A-3	0	0	85-100	75-100	35-75

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
368A:									
Searsport-------	0-1	Mucky peat	PT	A-8	0	0	100	100	100
	1-9	Muck	PT	A-8	0	0	85-100	75-100	35-100
	9-17	Loamy sand, coarse sand, fine sand	SP-SM, SM	A-1, A-2, A-3	0	0	85-100	75-100	35-80
	17-55	Coarse sand, fine sand, loamy fine sand	SM, SP-SM	A-1, A-2, A-3	0	0	85-100	75-100	35-80
	55-72	Fine sand, coarse sand, loamy fine sand	SP-SM, SP, SM	A-1, A-2, A-3	0	0-15	55-100	40-100	20-80
Wonsqueak-------	0-9	Mucky peat	PT	A-8	0	0	100	100	90-100
	9-24	Muck	PT	A-8	0	0	100	100	90-100
	24-44	Muck	PT	A-8	0	0	100	100	90-100
	44-72	Fine sandy loam, silt loam, silty clay loam	SC, SM, ML, CL-ML, CL	A-4, A-6	0	0-5	85-100	75-100	55-100
Naumburg--------	0-1	Highly decomposed plant material	PT	A-8	0	0	95-100	92-100	70-100
	1-5	Loamy fine sand	SM	A-2, A-4	0	0	95-100	92-100	50-85
	5-8	Loamy sand, loamy fine sand, fine sandy loam	SM	A-2, A-4	0	0	95-100	92-100	50-85
	8-10	Loamy sand, loamy fine sand, sand	SP-SM, SM, SW-SM	A-1, A-2	0	0	95-100	92-100	45-80
	10-16	Loamy fine sand, loamy sand, sand	SM, SP-SM, SW-SM	A-1, A-2	0	0	95-100	92-100	45-80
	16-19	Sand, loamy sand, loamy fine sand	SM, SP-SM, SW-SM	A-1, A-2, A-3	0	0	95-100	92-100	45-80
	19-72	Stratified sand, coarse sand, loamy fine sand	SM, SP-SM, SW-SM	A-1, A-2, A-3	0	0	95-100	92-100	45-80
375A:									
Colton----------	0-1	Moderately decomposed plant material	PT	A-8	0	0	100	100	---
	1-3	Sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2, A-3	0	0-10	45-95	35-92	20-65
	3-4	Gravelly sandy loam, very gravelly sand, gravelly coarse sandy loam, loamy sand	GW-GM, SM, GM	A-1, A-2	0-1	0-10	45-95	35-92	20-65
	4-5	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	GM, GW-GM, SM	A-1	0-1	0-10	45-90	35-75	15-50
	5-13	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	GM, GW-GM, SM	A-1	0-1	0-10	45-90	35-75	15-50

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
	13-21	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	GM, SP-SM, GW	A-1	0-1	0-15	45-90	35-75	15-50
	21-32	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	GW, SP-SM, GM	A-1	0-1	0-15	45-90	35-75	15-50
	32-80	Stratified very gravelly coarse sand, extremely gravelly coarse sand, very gravelly loamy sand, very cobbly sand	GP, GW, SW, SP	A-1	0-1	0-25	40-75	20-50	10-30
Adams-----------	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---
	2-3	Loamy sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	3-5	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	5-9	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	9-14	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	14-17	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	17-32	Sand, coarse sand, gravelly fine sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	32-58	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	58-72	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
375C:									
Colton----------	0-1	Moderately decomposed plant material	PT	A-8	0	0	100	100	---
	1-3	Sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2, A-3	0	0-10	45-95	35-92	20-65
	3-4	Gravelly sandy loam, very gravelly sand, gravelly coarse sandy loam, loamy sand	GM, GW-GM, SM	A-1, A-2	0-1	0-10	45-95	35-92	20-65

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	4-5	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	GW-GM, SM, GM	A-1	0-1	0-10	45-90	35-75	15-50
	5-13	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	GM, GW-GM, SM	A-1	0-1	0-10	45-90	35-75	15-50
	13-21	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	GM, GW, SP-SM	A-1	0-1	0-15	45-90	35-75	15-50
	21-32	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	GM, GW, SP-SM	A-1	0-1	0-15	45-90	35-75	15-50
	32-80	Stratified very gravelly coarse sand, extremely gravelly coarse sand, very gravelly loamy sand, very cobbly sand	GP, GW, SP, SW	A-1	0-1	0-25	40-75	20-50	10-30
Adams-----------	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---
	2-3	Loamy sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	3-5	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	5-9	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	9-14	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	14-17	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	17-32	Sand, coarse sand, gravelly fine sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	32-58	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	58-72	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
375D:									
Colton----------	0-1	Moderately decomposed plant material	PT	A-8	0	0	100	100	---
	1-3	Sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2, A-3	0	0-10	45-95	35-92	20-65

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	3-4	Gravelly sandy loam, very gravelly sand, gravelly coarse sandy loam, loamy sand	GM, GW-GM, SM	A-1, A-2	0-1	0-10	45-95	35-92	20-65
	4-5	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	GM, GW-GM, SM	A-1	0-1	0-10	45-90	35-75	15-50
	5-13	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	GM, GW-GM, SM	A-1	0-1	0-10	45-90	35-75	15-50
	13-21	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	GM, GW, SP-SM	A-1	0-1	0-15	45-90	35-75	15-50
	21-32	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	GM, GW, SP-SM	A-1	0-1	0-15	45-90	35-75	15-50
	32-80	Stratified very gravelly coarse sand, extremely gravelly coarse sand, very gravelly loamy sand, very cobbly sand	GP, GW, SW, SP	A-1	0-1	0-25	40-75	20-50	10-30
Adams-----------	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---
	2-3	Loamy sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	3-5	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	5-9	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	9-14	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	14-17	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	17-32	Sand, coarse sand, gravelly fine sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	32-58	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passi[ng] sieve number--: 4	10	40
	In				Pct	Pct			
	58-72	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
650C:									
Monadnock, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-2	Fine sandy loam	SC-SM, SM	A-4, A-2	0-5	0-10	85-99	75-99	40-90
	2-7	Sandy loam, fine sandy loam	SC-SM, SM	A-2, A-4	0-5	0-10	85-99	75-99	40-90
	7-14	Fine sandy loam, gravelly fine sandy loam, loam	SC-SM, SM	A-2, A-4	0-5	0-10	75-99	70-96	50-85
	14-27	Gravelly fine sandy loam, fine sandy loam, loam	SM	A-2, A-4	0-5	0-10	75-99	70-96	45-90
	27-41	Very gravelly loamy sand, gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60
	41-72	Gravelly loamy sand, very gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60
Adams-----------	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---
	2-3	Loamy sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	3-5	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	5-9	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	9-14	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	14-17	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	17-32	Sand, coarse sand, gravelly fine sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	32-58	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	58-72	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
Colton----------	0-1	Moderately decomposed plant material	PT	A-8	0	0	100	100	---
	1-3	Sandy loam	SM, GM, GP-GM, SP-SM	A-1, A-2, A-3	0	0-10	45-95	35-92	20-65

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	3-4	Gravelly sandy loam, very gravelly sand, gravelly coarse sandy loam, loamy sand	GM, GW-GM, SM	A-1, A-2	0-1	0-10	45-95	35-92	20-65
	4-5	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	SM, GM, GW-GM	A-1	0-1	0-10	45-90	35-75	15-50
	5-13	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	GM, GW-GM, SM	A-1	0-1	0-10	45-90	35-75	15-50
	13-21	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	GM, GW, SP-SM	A-1	0-1	0-15	45-90	35-75	15-50
	21-32	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	GW, GM, SP-SM	A-1	0-1	0-15	45-90	35-75	15-50
	32-80	Stratified very gravelly coarse sand, extremely gravelly coarse sand, very gravelly loamy sand, very cobbly sand	SW, SP, GW, GP	A-1	0-1	0-25	40-75	20-50	10-30
650D: Monadnock, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-2	Fine sandy loam	SC-SM, SM	A-4, A-2	0-5	0-10	85-99	75-99	40-90
	2-7	Sandy loam, fine sandy loam	SC-SM, SM	A-2, A-4	0-5	0-10	85-99	75-99	40-90
	7-14	Fine sandy loam, gravelly fine sandy loam, loam	SC-SM, SM	A-2, A-4	0-5	0-10	75-99	70-96	50-85
	14-27	Gravelly fine sandy loam, fine sandy loam, loam	SM	A-2, A-4	0-5	0-10	75-99	70-96	45-90
	27-41	Very gravelly loamy sand, gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60
	41-72	Gravelly loamy sand, very gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
Adams-----------	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---
	2-3	Loamy sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	3-5	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	5-9	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	9-14	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	14-17	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	17-32	Sand, coarse sand, gravelly fine sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	32-58	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	58-72	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
Colton----------	0-1	Moderately decomposed plant material	PT	A-8	0	0	100	100	---
	1-3	Sandy loam	SP-SM, GP-GM, SM, GM	A-1, A-2, A-3	0	0-10	45-95	35-92	20-65
	3-4	Gravelly sandy loam, very gravelly sand, gravelly coarse sandy loam, loamy sand	GW-GM, SM, GM	A-1, A-2	0-1	0-10	45-95	35-92	20-65
	4-5	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	GM, SM, GW-GM	A-1	0-1	0-10	45-90	35-75	15-50
	5-13	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	SM, GW-GM, GM	A-1	0-1	0-10	45-90	35-75	15-50
	13-21	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	SP-SM, GW, GM	A-1	0-1	0-15	45-90	35-75	15-50
	21-32	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	GM, GW, SP-SM	A-1	0-1	0-15	45-90	35-75	15-50

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passi sieve number--: 4	10	40
	In				Pct	Pct			
	32-80	Stratified very gravelly coarse sand, extremely gravelly coarse sand, very gravelly loamy sand, very cobbly sand	GP, SW, GW, SP	A-1	0-1	0-25	40-75	20-50	10-30
651C: Monadnock, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-2	Fine sandy loam	SC-SM, SM	A-4, A-2	0-5	0-10	85-99	75-99	40-90
	2-7	Sandy loam, fine sandy loam	SC-SM, SM	A-2, A-4	0-5	0-10	85-99	75-99	40-90
	7-14	Fine sandy loam, gravelly fine sandy loam, loam	SC-SM, SM	A-2, A-4	0-5	0-10	75-99	70-96	50-85
	14-27	Gravelly fine sandy loam, fine sandy loam, loam	SM	A-2, A-4	0-5	0-10	75-99	70-96	45-90
	27-41	Very gravelly loamy sand, gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60
	41-72	Gravelly loamy sand, very gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60
Tunbridge, rolling, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
Sabattis, very bouldery-------	0-8	Muck	PT	A-8	0-5	0-10	100	100	70-100
	8-11	Loam	CL-ML, ML, OL, SM	A-4	0-5	0-15	60-98	40-96	25-95
	11-21	Fine sandy loam, cobbly sandy loam, silt loam, very cobbly sandy loam	SM, ML, GM, CL-ML	A-2, A-4	0-5	0-15	60-98	40-96	25-95
	21-31	Sandy loam, gravelly fine sandy loam, loam, very cobbly sandy loam	GC-GM, ML, SM, GM	A-2, A-4	0-5	0-15	60-95	40-92	25-80
	31-37	Very fine sandy loam, gravelly sandy loam, fine sandy loam, very cobbly sandy loam	SM, ML, GM, GC-GM	A-2, A-4	0-5	0-15	60-95	40-92	25-80
	37-72	Gravelly sandy loam, fine sandy loam, very fine sandy loam, very cobbly sandy loam	SM, ML, GC-GM, GM	A-2, A-4	0-5	0-15	60-95	40-92	25-80
651D:									
Monadnock, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-2	Fine sandy loam	SC-SM, SM	A-4, A-2	0-5	0-10	85-99	75-99	40-90
	2-7	Sandy loam, fine sandy loam	SC-SM, SM	A-2, A-4	0-5	0-10	85-99	75-99	40-90
	7-14	Fine sandy loam, gravelly fine sandy loam, loam	SC-SM, SM	A-2, A-4	0-5	0-10	75-99	70-96	50-85
	14-27	Gravelly fine sandy loam, fine sandy loam, loam	SM	A-2, A-4	0-5	0-10	75-99	70-96	45-90
	27-41	Very gravelly loamy sand, gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60
	41-72	Gravelly loamy sand, very gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60
Tunbridge, hilly, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
651F:									
Monadnock, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-2	Fine sandy loam	SC-SM, SM	A-4, A-2	0-5	0-10	85-99	75-99	40-90
	2-7	Sandy loam, fine sandy loam	SC-SM, SM	A-2, A-4	0-5	0-10	85-99	75-99	40-90
	7-14	Fine sandy loam, gravelly fine sandy loam, loam	SC-SM, SM	A-2, A-4	0-5	0-10	75-99	70-96	50-85
	14-27	Gravelly fine sandy loam, fine sandy loam, loam	SM	A-2, A-4	0-5	0-10	75-99	70-96	45-90
	27-41	Very gravelly loamy sand, gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60
	41-72	Gravelly loamy sand, very gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
653C: Monadnock, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-2	Fine sandy loam	SC-SM, SM	A-4, A-2	0-5	0-10	85-99	75-99	40-90
	2-7	Sandy loam, fine sandy loam	SC-SM, SM	A-2, A-4	0-5	0-10	85-99	75-99	40-90
	7-14	Fine sandy loam, gravelly fine sandy loam, loam	SC-SM, SM	A-2, A-4	0-5	0-10	75-99	70-96	50-85
	14-27	Gravelly fine sandy loam, fine sandy loam, loam	SM	A-2, A-4	0-5	0-10	75-99	70-96	45-90
	27-41	Very gravelly loamy sand, gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60
	41-72	Gravelly loamy sand, very gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60
653D: Monadnock, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-2	Fine sandy loam	SC-SM, SM	A-4, A-2	0-5	0-10	85-99	75-99	40-90
	2-7	Sandy loam, fine sandy loam	SC-SM, SM	A-2, A-4	0-5	0-10	85-99	75-99	40-90
	7-14	Fine sandy loam, gravelly fine sandy loam, loam	SC-SM, SM	A-2, A-4	0-5	0-10	75-99	70-96	50-85
	14-27	Gravelly fine sandy loam, fine sandy loam, loam	SM	A-2, A-4	0-5	0-10	75-99	70-96	45-90
	27-41	Very gravelly loamy sand, gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60
	41-72	Gravelly loamy sand, very gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
708B:									
Adirondack, very bouldery-------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	50-100
	2-4	Highly decomposed plant material	PT	A-8	0-5	0-10	65-100	55-100	50-100
	4-6	Fine sandy loam	ML, SM	A-4	1-5	0-10	65-95	55-92	30-85
	6-8	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	ML, SM	A-4	0-5	0-10	65-95	55-92	30-85
	8-9	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	SM, ML	A-4	0-5	0-10	65-95	55-92	30-85
	9-18	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	SM, ML	A-4	0-5	0-10	65-95	55-92	30-85
	18-26	Sandy loam, gravelly fine sandy loam, stony loam	ML, SM	A-2, A-4	0-5	0-15	65-95	50-92	30-80
	26-34	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	GM, SM	A-1, A-2, A-4	0-5	0-20	65-95	50-92	25-80
	34-43	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	SM, GM	A-1, A-2, A-4	0-5	0-20	65-95	50-92	25-80
	43-72	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	SM, GM	A-1, A-2, A-4	0-5	0-20	65-95	50-92	25-80
Sabattis, very bouldery-------	0-8	Muck	PT	A-8	0-5	0-10	100	100	70-100
	8-11	Loam	ML, CL-ML, OL, SM	A-4	0-5	0-15	60-98	40-96	25-95
	11-21	Fine sandy loam, cobbly sandy loam, silt loam, very cobbly sandy loam	CL-ML, GM, SM, ML	A-2, A-4	0-5	0-15	60-98	40-96	25-95
	21-31	Sandy loam, gravelly fine sandy loam, loam, very cobbly sandy loam	SM, ML, GC-GM, GM	A-2, A-4	0-5	0-15	60-95	40-92	25-80
	31-37	Very fine sandy loam, gravelly sandy loam, fine sandy loam, very cobbly sandy loam	GC-GM, SM, ML, GM	A-2, A-4	0-5	0-15	60-95	40-92	25-80

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	37-72	Gravelly sandy loam, fine sandy loam, very fine sandy loam, very cobbly sandy loam	SM, GM, GC-GM, ML	A-2, A-4	0-5	0-15	60-95	40-92	25-80
Tughill, very bouldery-------	0-2	Cobbly muck	PT	A-8	0-7	0-20	65-100	50-100	35-100
	2-8	Cobbly mucky fine sandy loam	SC, SM, GM	A-1, A-2, A-4	0-7	0-20	65-98	50-95	30-90
	8-22	Very cobbly fine sandy loam, very gravelly sandy loam, very cobbly sandy loam, very gravelly loam	SM, GC-GM, GM	A-1, A-2, A-4	0-7	0-35	40-75	30-60	15-55
	22-38	Very cobbly fine sandy loam, very gravelly sandy loam, very cobbly sandy loam	GC-GM, SM, GM	A-1, A-2, A-4	0-7	0-35	40-75	30-60	15-55
	38-51	Very cobbly fine sandy loam, very gravelly sandy loam, very cobbly sandy loam	SM, GC-GM, GM	A-1, A-2, A-4	0-7	0-35	40-75	30-60	15-55
711C:									
Adirondack, very bouldery-------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	50-100
	2-4	Highly decomposed plant material	PT	A-8	0-5	0-10	65-100	55-100	50-100
	4-6	Fine sandy loam	ML, SM	A-4	1-5	0-10	65-95	55-92	30-85
	6-8	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	ML, SM	A-4	0-5	0-10	65-95	55-92	30-85
	8-9	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	ML, SM	A-4	0-5	0-10	65-95	55-92	30-85
	9-18	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	SM, ML	A-4	0-5	0-10	65-95	55-92	30-85
	18-26	Sandy loam, gravelly fine sandy loam, stony loam	ML, SM	A-4, A-2	0-5	0-15	65-95	50-92	30-80
	26-34	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	GM, SM	A-2, A-4, A-1	0-5	0-20	65-95	50-92	25-80

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	34-43	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	GM, SM	A-4, A-1, A-2	0-5	0-20	65-95	50-92	25-80
	43-72	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	GM, SM	A-4, A-1, A-2	0-5	0-20	65-95	50-92	25-80
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
Burnt Vly-------	0-1	Peat	PT	A-8	0	0	100	100	90-100
	1-3	Mucky peat, muck	PT	A-8	0	0	100	100	90-100
	3-11	Muck	PT	A-8	0	0	100	100	90-100
	11-26	Muck	PT	A-8	0	0	100	100	90-100
	26-30	Muck	PT	A-8	0	0	100	100	90-100
	30-60	Loamy sand, gravelly sand, very gravelly very fine sand	SC-SM, SM, SP, GP	A-2, A-3, A-1	0	0-5	50-100	35-100	15-80
721C: Becket, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Sandy loam	SC-SM, SM, SC	A-1-b, A-2, A-4	1-5	0-10	70-95	60-92	30-75

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	5-8	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SM, SC-SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	8-15	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SM, SC-SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	15-26	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand, sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-5	0-15	70-95	60-92	30-70
	26-38	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	SP-SM, GM, GP-GM, SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
	38-72	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	SP-SM, GM, GP-GM, SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
Skerry, very bouldery-------	0-3	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	5-7	Fine sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	7-11	Fine sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	11-17	Fine sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	17-29	Fine sandy loam, gravelly loamy fine sand, gravelly sandy loam, gravelly loamy sand	SM	A-2, A-1	0-5	0-10	70-95	60-92	30-70
	29-72	Gravelly loamy fine sand, very gravelly loamy sand, gravelly sandy loam, fine sandy loam	SM, SP-SM	A-1, A-2	0-5	0-20	65-95	45-92	20-70
721D:									
Becket, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Sandy loam	SC, SC-SM, SM	A-1-b, A-2, A-4	1-5	0-10	70-95	60-92	30-75
	5-8	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SC-SM, SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	8-15	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SC-SM, SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	15-26	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand, sandy loam	SP-SM, SM, GM, GP-GM	A-1, A-2	0-5	0-15	70-95	60-92	30-70
	26-38	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
	38-72	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	SP-SM, GP-GM, SM, GM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
721F:									
Becket, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Sandy loam	SM, SC-SM, SC	A-1-b, A-2, A-4	1-5	0-10	70-95	60-92	30-75
	5-8	Sandy loam, gravelly sandy loam, fine sandy loam	SC-SM, SC, SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	8-15	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SM, SC-SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	15-26	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand, sandy loam	SM, SP-SM, GP-GM, GM	A-1, A-2	0-5	0-15	70-95	60-92	30-70
	26-38	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
	38-72	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	SP-SM, GM, GP-GM, SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
723C:									
Becket, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Sandy loam	SC-SM, SM, SC	A-1-b, A-2, A-4	1-5	0-10	70-95	60-92	30-75
	5-8	Sandy loam, gravelly sandy loam, fine sandy loam	SM, SC, SC-SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	8-15	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SC-SM, SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	15-26	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand, sandy loam	SM, GM, GP-GM, SP-SM	A-1, A-2	0-5	0-15	70-95	60-92	30-70
	26-38	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	SM, GP-GM, GM, SP-SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
	38-72	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
723D:									
Becket, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number-- 4	10	40
	In				Pct	Pct			
	3-5	Sandy loam	SC, SC-SM, SM	A-1-b, A-2, A-4	1-5	0-10	70-95	60-92	30-75
	5-8	Sandy loam, gravelly sandy loam, fine sandy loam	SM, SC, SC-SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	8-15	Sandy loam, gravelly sandy loam, fine sandy loam	SC-SM, SC, SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	15-26	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand, sandy loam	SP-SM, GM, SM, GP-GM	A-1, A-2	0-5	0-15	70-95	60-92	30-70
	26-38	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
	38-72	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
725B: Skerry, very bouldery-------	0-3	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-10
	3-5	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-10
	5-7	Fine sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	7-11	Fine sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	11-17	Fine sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	17-29	Fine sandy loam, gravelly loamy fine sand, gravelly sandy loam, gravelly loamy sand	SM	A-2, A-1	0-5	0-10	70-95	60-92	30-70
	29-72	Gravelly loamy fine sand, very gravelly loamy sand, gravelly sandy loam, fine sandy loam	SP-SM, SM	A-1, A-2	0-5	0-20	65-95	45-92	20-70

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
Becket, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Sandy loam	SC, SC-SM, SM	A-1-b, A-2, A-4	1-5	0-10	70-95	60-92	30-75
	5-8	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SC-SM, SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	8-15	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SC-SM, SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	15-26	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand, sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-5	0-15	70-95	60-92	30-70
	26-38	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
	38-72	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
727B:									
Skerry, very bouldery-------	0-3	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	5-7	Fine sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	7-11	Fine sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	11-17	Fine sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	17-29	Fine sandy loam, gravelly loamy fine sand, gravelly sandy loam, gravelly loamy sand	SM	A-2, A-1	0-5	0-10	70-95	60-92	30-70
	29-72	Gravelly loamy fine sand, very gravelly loamy sand, gravelly sandy loam, fine sandy loam	SM, SP-SM	A-1, A-2	0-5	0-20	65-95	45-92	20-70

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
Adirondack, very bouldery-------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	50-100
	2-4	Highly decomposed plant material	PT	A-8	0-5	0-10	65-100	55-100	50-100
	4-6	Fine sandy loam	ML, SM	A-4	1-5	0-10	65-95	55-92	30-85
	6-8	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	ML, SM	A-4	0-5	0-10	65-95	55-92	30-85
	8-9	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	ML, SM	A-4	0-5	0-10	65-95	55-92	30-85
	9-18	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	ML, SM	A-4	0-5	0-10	65-95	55-92	30-85
	18-26	Sandy loam, gravelly fine sandy loam, stony loam	ML, SM	A-4, A-2	0-5	0-15	65-95	50-92	30-80
	26-34	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	GM, SM	A-2, A-4, A-1	0-5	0-20	65-95	50-92	25-80
	34-43	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	GM, SM	A-4, A-1, A-2	0-5	0-20	65-95	50-92	25-80
	43-72	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	SM, GM	A-4, A-1, A-2	0-5	0-20	65-95	50-92	25-80
741C: Potsdam, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-8	85-100	75-100	65-100
	2-8	Loam	SM, ML	A-4	1-5	0-8	85-100	75-100	65-100
	8-10	Fine sandy loam, loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-8	85-100	75-100	60-100
	10-13	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-8	85-100	75-100	65-100
	13-19	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-8	85-100	75-100	65-100
	19-25	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-8	85-100	75-100	65-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	25-28	Sandy loam, gravelly fine sandy loam, gravelly sandy loam	SM, GM	A-2, A-4	0-5	0-10	65-92	50-86	30-65
	28-72	Sandy loam, gravelly fine sandy loam, gravelly sandy loam	SM, GM	A-4, A-1, A-2	0-5	0-15	65-92	50-86	30-65
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
741D: Potsdam, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-8	85-100	75-100	65-100
	2-8	Loam	ML, SM	A-4	1-5	0-8	85-100	75-100	65-100
	8-10	Fine sandy loam, loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-8	85-100	75-100	60-100
	10-13	Loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-8	85-100	75-100	65-100
	13-19	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-8	85-100	75-100	65-100
	19-25	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-8	85-100	75-100	65-100
	25-28	Sandy loam, gravelly fine sandy loam, gravelly sandy loam	SM, GM	A-2, A-4	0-5	0-10	65-92	50-86	30-65
	28-72	Sandy loam, gravelly fine sandy loam, gravelly sandy loam	GM, SM	A-4, A-1, A-2	0-5	0-15	65-92	50-86	30-65

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
743C: Potsdam, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-8	85-100	75-100	65-100
	2-8	Loam	SM, ML	A-4	1-5	0-8	85-100	75-100	65-100
	8-10	Fine sandy loam, loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-8	85-100	75-100	60-100
	10-13	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-8	85-100	75-100	65-100
	13-19	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-8	85-100	75-100	65-100
	19-25	Loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-8	85-100	75-100	65-100
	25-28	Sandy loam, gravelly fine sandy loam, gravelly sandy loam	GM, SM	A-2, A-4	0-5	0-10	65-92	50-86	30-65
	28-72	Sandy loam, gravelly fine sandy loam, gravelly sandy loam	GM, SM	A-4, A-1, A-2	0-5	0-15	65-92	50-86	30-65
743D: Potsdam, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-8	85-100	75-100	65-100
	2-8	Loam	ML, SM	A-4	1-5	0-8	85-100	75-100	65-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	8-10	Fine sandy loam, loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-8	85-100	75-100	60-100
	10-13	Loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-8	85-100	75-100	65-100
	13-19	Loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-8	85-100	75-100	65-100
	19-25	Loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-8	85-100	75-100	65-100
	25-28	Sandy loam, gravelly fine sandy loam, gravelly sandy loam	SM, GM	A-2, A-4	0-5	0-10	65-92	50-86	30-65
	28-72	Sandy loam, gravelly fine sandy loam, gravelly sandy loam	SM, GM	A-4, A-1, A-2	0-5	0-15	65-92	50-86	30-65
745C: Crary, very bouldery-------	0-4	Loam	ML, SM	A-4	1-5	0-5	85-100	75-100	55-100
	4-8	Loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-5	85-100	75-100	60-100
	8-16	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-5	85-100	75-100	60-100
	16-21	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-5	85-100	75-100	60-100
	21-25	Sandy loam, fine sandy loam, loam	ML, SM, GM	A-2, A-4	0-5	0-8	85-100	75-100	45-95
	25-72	Sandy loam, gravelly fine sandy loam, loam	SM, ML, GM	A-1, A-2, A-4	0-5	0-15	65-92	50-85	30-70
Potsdam, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-8	85-100	75-100	65-100
	2-8	Loam	SM, ML	A-4	1-5	0-8	85-100	75-100	65-100
	8-10	Fine sandy loam, loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-8	85-100	75-100	60-100
	10-13	Loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-8	85-100	75-100	65-100
	13-19	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-8	85-100	75-100	65-100
	19-25	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-8	85-100	75-100	65-100
	25-28	Sandy loam, gravelly fine sandy loam, gravelly sandy loam	GM, SM	A-2, A-4	0-5	0-10	65-92	50-86	30-65

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
	28-72	Sandy loam, gravelly fine sandy loam, gravelly sandy loam	GM, SM	A-4, A-1, A-2	0-5	0-15	65-92	50-86	30-65
747B:									
Crary, very bouldery-------	0-4	Loam	ML, SM	A-4	1-5	0-5	85-100	75-100	55-100
	4-8	Loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-5	85-100	75-100	60-100
	8-16	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-5	85-100	75-100	60-100
	16-21	Loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-5	85-100	75-100	60-100
	21-25	Sandy loam, fine sandy loam, loam	GM, ML, SM	A-2, A-4	0-5	0-8	85-100	75-100	45-95
	25-72	Sandy loam, gravelly fine sandy loam, loam	SM, ML, GM	A-1, A-2, A-4	0-5	0-15	65-92	50-85	30-70
Adirondack, very bouldery-------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	50-100
	2-4	Highly decomposed plant material	PT	A-8	0-5	0-10	65-100	55-100	50-100
	4-6	Fine sandy loam	SM, ML	A-4	1-5	0-10	65-95	55-92	30-85
	6-8	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	SM, ML	A-4	0-5	0-10	65-95	55-92	30-85
	8-9	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	ML, SM	A-4	0-5	0-10	65-95	55-92	30-85
	9-18	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	SM, ML	A-4	0-5	0-10	65-95	55-92	30-85
	18-26	Sandy loam, gravelly fine sandy loam, stony loam	SM, ML	A-4, A-2	0-5	0-15	65-95	50-92	30-80
	26-34	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	SM, GM	A-2, A-4, A-1	0-5	0-20	65-95	50-92	25-80
	34-43	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	SM, GM	A-4, A-1, A-2	0-5	0-20	65-95	50-92	25-80

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	43-72	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	SM, GM	A-4, A-1, A-2	0-5	0-20	65-95	50-92	25-80
831C:									
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	2-3	Fine sandy loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	3-4	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	4-8	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	ML, GM, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	8-14	Fine sandy loam, loam, silt loam	SM, ML, GM	A-1, A-2, A-4	0-5	0-15	77-95	65-92	35-80
	14-24	Unweathered bedrock			---	---	---	---	---

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
831D:									
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	2-3	Fine sandy loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	3-4	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	4-8	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	8-14	Fine sandy loam, loam, silt loam	GM, ML, SM	A-1, A-2, A-4	0-5	0-15	77-95	65-92	35-80
	14-24	Unweathered bedrock			---	---	---	---	---
831F:									
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	2-3	Fine sandy loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	3-4	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	4-8	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	8-14	Fine sandy loam, loam, silt loam	ML, SM, GM	A-1, A-2, A-4	0-5	0-15	77-95	65-92	35-80
	14-24	Unweathered bedrock			---	---	---	---	---
833C: Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
Adirondack, very bouldery-------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	50-100
	2-4	Highly decomposed plant material	PT	A-8	0-5	0-10	65-100	55-100	50-100
	4-6	Fine sandy loam	SM, ML	A-4	1-5	0-10	65-95	55-92	30-85
	6-8	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	SM, ML	A-4	0-5	0-10	65-95	55-92	30-85
	8-9	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	SM, ML	A-4	0-5	0-10	65-95	55-92	30-85
	9-18	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	SM, ML	A-4	0-5	0-10	65-95	55-92	30-85
	18-26	Sandy loam, gravelly fine sandy loam, stony loam	SM, ML	A-4, A-2	0-5	0-15	65-95	50-92	30-80
	26-34	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	SM, GM	A-2, A-4, A-1	0-5	0-20	65-95	50-92	25-80
	34-43	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	SM, GM	A-4, A-1, A-2	0-5	0-20	65-95	50-92	25-80
	43-72	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	SM, GM	A-4, A-1, A-2	0-5	0-20	65-95	50-92	25-80
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	2-3	Fine sandy loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	3-4	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	GM, SM, ML	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	4-8	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	ML, SM, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	8-14	Fine sandy loam, loam, silt loam	ML, GM, SM	A-1, A-2, A-4	0-5	0-15	77-95	65-92	35-80
	14-24	Unweathered bedrock			---	---	---	---	---

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
836C:									
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
Wonsqueak-------	0-9	Mucky peat	PT	A-8	0	0	100	100	90-100
	9-24	Muck	PT	A-8	0	0	100	100	90-100
	24-44	Muck	PT	A-8	0	0	100	100	90-100
	44-72	Fine sandy loam, silt loam, silty clay loam	SC, SM, ML, CL-ML, CL	A-4, A-6	0	0-5	85-100	75-100	55-100
Knob Lock, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-5	100	100	70-100
	1-3	Moderately decomposed plant material, slightly decomposed plant material	PT	A-8	0-5	0-5	100	100	70-100
	3-8	Highly decomposed plant material, moderately decomposed plant material, slightly decomposed plant material	PT	A-8	0-5	0-5	50-100	35-100	30-100
	8-18	Unweathered bedrock			---	---	---	---	---
851C:									
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	2-3	Fine sandy loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	3-4	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	4-8	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	8-14	Fine sandy loam, loam, silt loam	GM, ML, SM	A-1, A-2, A-4	0-5	0-15	77-95	65-92	35-80
	14-24	Unweathered bedrock			---	---	---	---	---
Knob Lock, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-5	100	100	70-100
	1-3	Moderately decomposed plant material, slightly decomposed plant material	PT	A-8	0-5	0-5	100	100	70-100
	3-8	Highly decomposed plant material, moderately decomposed plant material, slightly decomposed plant material	PT	A-8	0-5	0-5	50-100	35-100	30-100
	8-18	Unweathered bedrock			---	---	---	---	---
851D:									
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	2-3	Fine sandy loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	3-4	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	GM, SM, ML	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	4-8	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	8-14	Fine sandy loam, loam, silt loam	SM, ML, GM	A-1, A-2, A-4	0-5	0-15	77-95	65-92	35-80
	14-24	Unweathered bedrock			---	---	---	---	---

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
Knob Lock, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-5	100	100	70-100
	1-3	Moderately decomposed plant material, slightly decomposed plant material	PT	A-8	0-5	0-5	100	100	70-100
	3-8	Highly decomposed plant material, moderately decomposed plant material, slightly decomposed plant material	PT	A-8	0-5	0-5	50-100	35-100	30-100
	8-18	Unweathered bedrock			---	---	---	---	---
851F:									
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	2-3	Fine sandy loam	GM, SM, ML	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	3-4	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	ML, GM, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	4-8	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	SM, ML, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	8-14	Fine sandy loam, loam, silt loam	ML, SM, GM	A-1, A-2, A-4	0-5	0-15	77-95	65-92	35-80
	14-24	Unweathered bedrock			---	---	---	---	---
Knob Lock, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-5	100	100	70-100
	1-3	Moderately decomposed plant material, slightly decomposed plant material	PT	A-8	0-5	0-5	100	100	70-100
	3-8	Highly decomposed plant material, moderately decomposed plant material, slightly decomposed plant material	PT	A-8	0-5	0-5	50-100	35-100	30-100
	8-18	Unweathered bedrock			---	---	---	---	---

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
931D:									
Mundalite, very bouldery-------	0-1	Highly decomposed plant material	PT	A-8	0-5	0-10	75-100	65-100	50-100
	1-3	Fine sandy loam	ML, SM	A-2, A-4	0-5	0-10	75-100	65-98	35-90
	3-5	Fine sandy loam, cobbly fine sandy loam, gravelly sandy loam, loam	SM, ML	A-2, A-4	0-3	0-15	75-100	65-98	35-90
	5-14	Fine sandy loam, cobbly fine sandy loam, gravelly sandy loam, loam	GM, SM, GC-GM	A-2, A-4	0-3	0-15	75-95	65-92	35-85
	14-27	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	GM, GC-GM, SM	A-2, A-4	0-3	0-15	75-95	65-92	35-80
	27-37	Very cobbly fine sandy loam, gravelly sandy loam, cobbly loamy sand	SP-SM, SM, GM	A-1, A-2	0-5	0-40	60-95	35-92	25-70
	37-72	Very cobbly loamy sand, gravelly sandy loam, cobbly fine sandy loam	SM, GM, SP-SM	A-1, A-2	0-5	0-40	60-95	35-92	25-70
Rawsonville, very bouldery--	0-4	Slightly decomposed plant material	PT	A-8	0-5	0-8	80-100	70-100	70-100
	4-7	Highly decomposed plant material	PT	A-8	0-5	0-8	80-100	70-100	50-100
	7-9	Fine sandy loam	ML, SM	A-4	0-5	0-8	75-100	70-100	40-95
	9-10	Fine sandy loam, gravelly fine sandy loam, silt loam	SM, ML	A-2, A-4	0-5	0-15	65-100	55-100	30-85
	10-15	Fine sandy loam, gravelly fine sandy loam, silt loam	ML, SM	A-2, A-4	0-8	0-15	65-95	55-92	30-85
	15-26	Fine sandy loam, gravelly fine sandy loam, silt loam	ML, SM	A-2, A-4	0-8	0-15	65-95	55-92	30-85
	26-27	Gravelly fine sandy loam, fine sandy loam, sandy loam	GM, GC, SM	A-2, A-4	0-8	0-15	65-95	55-92	30-70
	27-37	Unweathered bedrock			---	---	---	---	---

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
931F:									
Mundalite, very bouldery-------	0-1	Highly decomposed plant material	PT	A-8	0-5	0-10	75-100	65-100	50-100
	1-3	Fine sandy loam	ML, SM	A-2, A-4	0-5	0-10	75-100	65-98	35-90
	3-5	Fine sandy loam, cobbly fine sandy loam, gravelly sandy loam, loam	ML, SM	A-2, A-4	0-3	0-15	75-100	65-98	35-90
	5-14	Fine sandy loam, cobbly fine sandy loam, gravelly sandy loam, loam	GM, SM, GC-GM	A-2, A-4	0-3	0-15	75-95	65-92	35-85
	14-27	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	GC-GM, GM, SM	A-2, A-4	0-3	0-15	75-95	65-92	35-80
	27-37	Very cobbly fine sandy loam, gravelly sandy loam, cobbly loamy sand	SP-SM, SM, GM	A-1, A-2	0-5	0-40	60-95	35-92	25-70
	37-72	Very cobbly loamy sand, gravelly sandy loam, cobbly fine sandy loam	SP-SM, SM, GM	A-1, A-2	0-5	0-40	60-95	35-92	25-70
Rawsonville, very bouldery--	0-4	Slightly decomposed plant material	PT	A-8	0-5	0-8	80-100	70-100	70-100
	4-7	Highly decomposed plant material	PT	A-8	0-5	0-8	80-100	70-100	50-100
	7-9	Fine sandy loam	ML, SM	A-4	0-5	0-8	75-100	70-100	40-95
	9-10	Fine sandy loam, gravelly fine sandy loam, silt loam	ML, SM	A-2, A-4	0-5	0-15	65-100	55-100	30-85
	10-15	Fine sandy loam, gravelly fine sandy loam, silt loam	ML, SM	A-2, A-4	0-8	0-15	65-95	55-92	30-85
	15-26	Fine sandy loam, gravelly fine sandy loam, silt loam	ML, SM	A-2, A-4	0-8	0-15	65-95	55-92	30-85
	26-27	Gravelly fine sandy loam, fine sandy loam, sandy loam	GC, GM, SM	A-2, A-4	0-8	0-15	65-95	55-92	30-70
	27-37	Unweathered bedrock			---	---	---	---	---

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
941C:									
Rawsonville, very bouldery--	0-4	Slightly decomposed plant material	PT	A-8	0-5	0-8	80-100	70-100	70-100
	4-7	Highly decomposed plant material	PT	A-8	0-5	0-8	80-100	70-100	50-100
	7-9	Fine sandy loam	SM, ML	A-4	0-5	0-8	75-100	70-100	40-95
	9-10	Fine sandy loam, gravelly fine sandy loam, silt loam	ML, SM	A-2, A-4	0-5	0-15	65-100	55-100	30-85
	10-15	Fine sandy loam, gravelly fine sandy loam, silt loam	SM, ML	A-2, A-4	0-8	0-15	65-95	55-92	30-85
	15-26	Fine sandy loam, gravelly fine sandy loam, silt loam	SM, ML	A-2, A-4	0-8	0-15	65-95	55-92	30-85
	26-27	Gravelly fine sandy loam, fine sandy loam, sandy loam	GM, GC, SM	A-2, A-4	0-8	0-15	65-95	55-92	30-70
	27-37	Unweathered bedrock			---	---	---	---	---
Hogback, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	1-5	0-8	100	100	50-100
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-8	100	100	50-100
	2-3	Fine sandy loam, gravelly fine sandy loam, sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-15	65-95	50-92	30-80
	3-4	Fine sandy loam, gravelly fine sandy loam, sandy loam, loam	GM, SM, ML	A-2, A-4	0-5	0-15	65-95	50-92	30-80
	4-18	Fine sandy loam, gravelly fine sandy loam, sandy loam, loam	ML, SM, GM	A-2, A-4	0-5	0-15	65-95	50-92	30-80
	18-28	Unweathered bedrock			---	---	---	---	---
941D:									
Rawsonville, very bouldery--	0-4	Slightly decomposed plant material	PT	A-8	0-5	0-8	80-100	70-100	70-100
	4-7	Highly decomposed plant material	PT	A-8	0-5	0-8	80-100	70-100	50-100
	7-9	Fine sandy loam	ML, SM	A-4	0-5	0-8	75-100	70-100	40-95
	9-10	Fine sandy loam, gravelly fine sandy loam, silt loam	ML, SM	A-2, A-4	0-5	0-15	65-100	55-100	30-85

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	10-15	Fine sandy loam, gravelly fine sandy loam, silt loam	ML, SM	A-2, A-4	0-8	0-15	65-95	55-92	30-85
	15-26	Fine sandy loam, gravelly fine sandy loam, silt loam	ML, SM	A-2, A-4	0-8	0-15	65-95	55-92	30-85
	26-27	Gravelly fine sandy loam, fine sandy loam, sandy loam	SM, GC, GM	A-2, A-4	0-8	0-15	65-95	55-92	30-70
	27-37	Unweathered bedrock			---	---	---	---	---
Hogback, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	1-5	0-8	100	100	50-100
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-8	100	100	50-100
	2-3	Fine sandy loam, gravelly fine sandy loam, sandy loam, loam	GM, ML, SM	A-2, A-4	0-5	0-15	65-95	50-92	30-80
	3-4	Fine sandy loam, gravelly fine sandy loam, sandy loam, loam	GM, ML, SM	A-2, A-4	0-5	0-15	65-95	50-92	30-80
	4-18	Fine sandy loam, gravelly fine sandy loam, sandy loam, loam	ML, SM, GM	A-2, A-4	0-5	0-15	65-95	50-92	30-80
	18-28	Unweathered bedrock			---	---	---	---	---
941F: Rawsonville, very bouldery--	0-4	Slightly decomposed plant material	PT	A-8	0-5	0-8	80-100	70-100	70-100
	4-7	Highly decomposed plant material	PT	A-8	0-5	0-8	80-100	70-100	50-100
	7-9	Fine sandy loam	ML, SM	A-4	0-5	0-8	75-100	70-100	40-95
	9-10	Fine sandy loam, gravelly fine sandy loam, silt loam	SM, ML	A-2, A-4	0-5	0-15	65-100	55-100	30-85
	10-15	Fine sandy loam, gravelly fine sandy loam, silt loam	SM, ML	A-2, A-4	0-8	0-15	65-95	55-92	30-85
	15-26	Fine sandy loam, gravelly fine sandy loam, silt loam	SM, ML	A-2, A-4	0-8	0-15	65-95	55-92	30-85
	26-27	Gravelly fine sandy loam, fine sandy loam, sandy loam	GC, GM, SM	A-2, A-4	0-8	0-15	65-95	55-92	30-70

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	27-37	Unweathered bedrock			---	---	---	---	---
Hogback, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	1-5	0-8	100	100	50-100
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-8	100	100	50-100
	2-3	Fine sandy loam, gravelly fine sandy loam, sandy loam, loam	GM, ML, SM	A-2, A-4	0-5	0-15	65-95	50-92	30-80
	3-4	Fine sandy loam, gravelly fine sandy loam, sandy loam, loam	ML, SM, GM	A-2, A-4	0-5	0-15	65-95	50-92	30-80
	4-18	Fine sandy loam, gravelly fine sandy loam, sandy loam, loam	GM, ML, SM	A-2, A-4	0-5	0-15	65-95	50-92	30-80
	18-28	Unweathered bedrock			---	---	---	---	---
1018B: Colton----------	0-1	Moderately decomposed plant material	PT	A-8	0	0	100	100	---
	1-3	Sandy loam	SP-SM, SM, GP-GM, GM	A-1, A-2, A-3	0	0-10	45-95	35-92	20-65
	3-4	Gravelly sandy loam, very gravelly sand, gravelly coarse sandy loam, loamy sand	SM, GW-GM, GM	A-1, A-2	0-1	0-10	45-95	35-92	20-65
	4-5	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	SM, GM, GW-GM	A-1	0-1	0-10	45-90	35-75	15-50
	5-13	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	SM, GW-GM, GM	A-1	0-1	0-10	45-90	35-75	15-50
	13-21	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	SP-SM, GW, GM	A-1	0-1	0-15	45-90	35-75	15-50
	21-32	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	GM, SP-SM, GW	A-1	0-1	0-15	45-90	35-75	15-50

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	32-80	Stratified very gravelly coarse sand, extremely gravelly coarse sand, very gravelly loamy sand, very cobbly sand	GP, GW, SP, SW	A-1	0-1	0-25	40-75	20-50	10-30
1018C: Colton----------	0-1	Moderately decomposed plant material	PT	A-8	0	0	100	100	---
	1-3	Sandy loam	SP-SM, SM, GM, GP-GM	A-1, A-2, A-3	0	0-10	45-95	35-92	20-65
	3-4	Gravelly sandy loam, very gravelly sand, gravelly coarse sandy loam, loamy sand	GW-GM, SM, GM	A-1, A-2	0-1	0-10	45-95	35-92	20-65
	4-5	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	SM, GW-GM, GM	A-1	0-1	0-10	45-90	35-75	15-50
	5-13	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	GM, GW-GM, SM	A-1	0-1	0-10	45-90	35-75	15-50
	13-21	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	GM, GW, SP-SM	A-1	0-1	0-15	45-90	35-75	15-50
	21-32	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	GM, GW, SP-SM	A-1	0-1	0-15	45-90	35-75	15-50
	32-80	Stratified very gravelly coarse sand, extremely gravelly coarse sand, very gravelly loamy sand, very cobbly sand	SW, GW, GP, SP	A-1	0-1	0-25	40-75	20-50	10-30
1018D: Colton----------	0-1	Moderately decomposed plant material	PT	A-8	0	0	100	100	---
	1-3	Sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2, A-3	0	0-10	45-95	35-92	20-65

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	3-4	Gravelly sandy loam, very gravelly sand, gravelly coarse sandy loam, loamy sand	SM, GW-GM, GM	A-1, A-2	0-1	0-10	45-95	35-92	20-65
	4-5	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	SM, GW-GM, GM	A-1	0-1	0-10	45-90	35-75	15-50
	5-13	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	GW-GM, GM, SM	A-1	0-1	0-10	45-90	35-75	15-50
	13-21	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	SP-SM, GW, GM	A-1	0-1	0-15	45-90	35-75	15-50
	21-32	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	SP-SM, GW, GM	A-1	0-1	0-15	45-90	35-75	15-50
	32-80	Stratified very gravelly coarse sand, extremely gravelly coarse sand, very gravelly loamy sand, very cobbly sand	GW, GP, SP, SW	A-1	0-1	0-25	40-75	20-50	10-30
1022A: Croghan---------	0-2	Moderately decomposed plant material	PT	A-8	0	0	100	100	50-100
	2-3	Fine sandy loam	SM, SP-SM, SW-SM	A-1, A-2, A-4	0	0	95-100	92-100	45-85
	3-5	Sand, loamy sand, loamy fine sand	SM, SP-SM, SW-SM	A-1, A-2, A-4	0	0	85-100	75-100	40-80
	5-11	Sand, loamy sand, loamy fine sand	SP-SM, SW-SM, SM	A-1, A-2, A-4	0	0	85-100	75-100	40-80
	11-30	Sand, loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2, A-3, A-4	0	0	85-100	75-100	40-80
	30-36	Loamy fine sand, loamy sand, coarse sand	SM, SW-SM, SP-SM	A-1, A-2, A-3	0	0	85-100	75-100	35-80
	36-60	Fine sand, sand, coarse sand	SM, SP-SM, SW-SM	A-1, A-2, A-3	0	0	85-100	75-100	35-75

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
1023A:									
Naumburg--------	0-1	Highly decomposed plant material	PT	A-8	0	0	95-100	92-100	70-100
	1-5	Loamy fine sand	SM	A-2, A-4	0	0	95-100	92-100	50-85
	5-8	Loamy sand, loamy fine sand, fine sandy loam	SM	A-2, A-4	0	0	95-100	92-100	50-85
	8-10	Loamy sand, loamy fine sand, sand	SM, SP-SM, SW-SM	A-1, A-2	0	0	95-100	92-100	45-80
	10-16	Loamy fine sand, loamy sand, sand	SW-SM, SP-SM, SM	A-1, A-2	0	0	95-100	92-100	45-80
	16-19	Sand, loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2, A-3	0	0	95-100	92-100	45-80
	19-72	Stratified sand, coarse sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2, A-3	0	0	95-100	92-100	45-80
1024A:									
Searsport-------	0-1	Mucky peat	PT	A-8	0	0	100	100	100
	1-9	Muck	PT	A-8	0	0	85-100	75-100	35-100
	9-17	Loamy sand, coarse sand, fine sand	SM, SP-SM	A-1, A-2, A-3	0	0	85-100	75-100	35-80
	17-55	Coarse sand, fine sand, loamy fine sand	SM, SP-SM	A-1, A-2, A-3	0	0	85-100	75-100	35-80
	55-72	Fine sand, coarse sand, loamy fine sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0-15	55-100	40-100	20-80
1025A:									
Adams-----------	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---
	2-3	Loamy sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	3-5	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	5-9	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	9-14	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	14-17	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	17-32	Sand, coarse sand, gravelly fine sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	32-58	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	58-72	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
1025B:									
Adams-----------	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---
	2-3	Loamy sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	3-5	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	5-9	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	9-14	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	14-17	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	17-32	Sand, coarse sand, gravelly fine sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	32-58	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	58-72	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
1025C:									
Adams-----------	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---
	2-3	Loamy sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	3-5	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	5-9	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	9-14	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	14-17	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	17-32	Sand, coarse sand, gravelly fine sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	32-58	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	58-72	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
1025E:									
Adams-----------	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---
	2-3	Loamy sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	3-5	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	5-9	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	9-14	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	14-17	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	17-32	Sand, coarse sand, gravelly fine sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	32-58	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	58-72	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
1025F: Adams-----------	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---
	2-3	Loamy sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	3-5	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	5-9	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	9-14	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	14-17	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	17-32	Sand, coarse sand, gravelly fine sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	32-58	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	58-72	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
1027B: Allagash--------	0-1	Moderately decomposed plant material	PT	A-8	0	0	---	---	---
	1-3	Fine sandy loam	SM, ML	A-4, A-2	0	0	85-100	75-100	55-95
	3-5	Loam, fine sandy loam, silt loam	ML, SM	A-4, A-2	0	0	85-100	75-100	55-95
	5-19	Loam, fine sandy loam, silt loam	ML, SM	A-4, A-2	0	0	85-100	75-100	55-95
	19-35	Loam, fine sandy loam, silt loam	ML, SM	A-4, A-2	0	0	85-100	75-100	55-95
	35-44	Fine sand, loamy fine sand, sand	SM	A-2, A-1	0	0	85-100	75-100	50-90
	44-72	Fine sand, loamy fine sand, sand	SM, SP-SM	A-2, A-1, A-3	0	0	50-100	35-100	15-80

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
1027C:									
Allagash--------	0-1	Moderately decomposed plant material	PT	A-8	0	0	---	---	---
	1-3	Fine sandy loam	SM, ML	A-4, A-2	0	0	85-100	75-100	55-95
	3-5	Loam, fine sandy loam, silt loam	ML, SM	A-4, A-2	0	0	85-100	75-100	55-95
	5-19	Loam, fine sandy loam, silt loam	ML, SM	A-4, A-2	0	0	85-100	75-100	55-95
	19-35	Loam, fine sandy loam, silt loam	ML, SM	A-4, A-2	0	0	85-100	75-100	55-95
	35-44	Fine sand, loamy fine sand, sand	SM	A-2, A-1	0	0	85-100	75-100	50-90
	44-72	Fine sand, loamy fine sand, sand	SM, SP-SM	A-2, A-1, A-3	0	0	50-100	35-100	15-80
1027E:									
Allagash--------	0-1	Moderately decomposed plant material	PT	A-8	0	0	---	---	---
	1-3	Fine sandy loam	SM, ML	A-4, A-2	0	0	85-100	75-100	55-95
	3-5	Loam, fine sandy loam, silt loam	ML, SM	A-4, A-2	0	0	85-100	75-100	55-95
	5-19	Loam, fine sandy loam, silt loam	ML, SM	A-4, A-2	0	0	85-100	75-100	55-95
	19-35	Loam, fine sandy loam, silt loam	ML, SM	A-4, A-2	0	0	85-100	75-100	55-95
	35-44	Fine sand, loamy fine sand, sand	SM	A-2, A-1	0	0	85-100	75-100	50-90
	44-72	Fine sand, loamy fine sand, sand	SM, SP-SM	A-2, A-1, A-3	0	0	50-100	35-100	15-80
1070B:									
Berkshire, very bouldery-------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	75-100	70-100	50-100
	2-5	Loam	ML, SM	A-4, A-2	1-5	0-10	75-96	70-92	40-85
	5-6	Fine sandy loam, sandy loam, gravelly loam	ML, SM	A-4, A-2	0-5	0-10	75-96	70-92	40-85
	6-9	Loam, sandy loam, gravelly fine sandy loam	SM, ML	A-2, A-4	0-5	0-15	70-95	50-92	30-80
	9-21	Loam, sandy loam, gravelly fine sandy loam	SM, ML	A-2, A-4	0-5	0-15	70-95	50-92	30-80
	21-30	Fine sandy loam, sandy loam, gravelly loam	SM, ML	A-4, A-2	0-5	0-15	70-95	50-92	30-80
	30-32	Gravelly fine sandy loam, sandy loam, loam	SM, ML	A-2, A-4	0-5	1-15	70-95	50-92	30-75

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	32-74	Gravelly fine sandy loam, sandy loam, loam	SM, ML	A-2, A-4	0-5	1-15	70-95	50-92	30-75
1070C: Berkshire, very bouldery-------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	75-100	70-100	50-100
	2-5	Loam	ML, SM	A-4, A-2	1-5	0-10	75-96	70-92	40-85
	5-6	Fine sandy loam, sandy loam, gravelly loam	ML, SM	A-4, A-2	0-5	0-10	75-96	70-92	40-85
	6-9	Loam, sandy loam, gravelly fine sandy loam	SM, ML	A-2, A-4	0-5	0-15	70-95	50-92	30-80
	9-21	Loam, sandy loam, gravelly fine sandy loam	SM, ML	A-2, A-4	0-5	0-15	70-95	50-92	30-80
	21-30	Fine sandy loam, sandy loam, gravelly loam	SM, ML	A-4, A-2	0-5	0-15	70-95	50-92	30-80
	30-32	Gravelly fine sandy loam, sandy loam, loam	SM, ML	A-2, A-4	0-5	1-15	70-95	50-92	30-75
	32-74	Gravelly fine sandy loam, sandy loam, loam	SM, ML	A-2, A-4	0-5	1-15	70-95	50-92	30-75
1070E: Berkshire, very bouldery-------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	75-100	70-100	50-100
	2-5	Loam	ML, SM	A-4, A-2	1-5	0-10	75-96	70-92	40-85
	5-6	Fine sandy loam, sandy loam, gravelly loam	ML, SM	A-4, A-2	0-5	0-10	75-96	70-92	40-85
	6-9	Loam, sandy loam, gravelly fine sandy loam	SM, ML	A-2, A-4	0-5	0-15	70-95	50-92	30-80
	9-21	Loam, sandy loam, gravelly fine sandy loam	SM, ML	A-2, A-4	0-5	0-15	70-95	50-92	30-80
	21-30	Fine sandy loam, sandy loam, gravelly loam	SM, ML	A-4, A-2	0-5	0-15	70-95	50-92	30-80
	30-32	Gravelly fine sandy loam, sandy loam, loam	SM, ML	A-2, A-4	0-5	1-15	70-95	50-92	30-75
	32-74	Gravelly fine sandy loam, sandy loam, loam	SM, ML	A-2, A-4	0-5	1-15	70-95	50-92	30-75

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
1075B: Potsdam, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-8	85-100	75-100	65-100
	2-8	Loam	ML, SM	A-4	1-5	0-8	85-100	75-100	65-100
	8-10	Fine sandy loam, loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-8	85-100	75-100	60-100
	10-13	Loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-8	85-100	75-100	65-100
	13-19	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-8	85-100	75-100	65-100
	19-25	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-8	85-100	75-100	65-100
	25-28	Sandy loam, gravelly fine sandy loam, gravelly sandy loam	GM, SM	A-2, A-4	0-5	0-10	65-92	50-86	30-65
	28-72	Sandy loam, gravelly fine sandy loam, gravelly sandy loam	SM, GM	A-4, A-1, A-2	0-5	0-15	65-92	50-86	30-65
1075C: Potsdam, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-8	85-100	75-100	65-100
	2-8	Loam	ML, SM	A-4	1-5	0-8	85-100	75-100	65-100
	8-10	Fine sandy loam, loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-8	85-100	75-100	60-100
	10-13	Loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-8	85-100	75-100	65-100
	13-19	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-8	85-100	75-100	65-100
	19-25	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-8	85-100	75-100	65-100
	25-28	Sandy loam, gravelly fine sandy loam, gravelly sandy loam	GM, SM	A-2, A-4	0-5	0-10	65-92	50-86	30-65
	28-72	Sandy loam, gravelly fine sandy loam, gravelly sandy loam	SM, GM	A-4, A-1, A-2	0-5	0-15	65-92	50-86	30-65
1078B: Crary, very bouldery-------	0-4	Loam	ML, SM	A-4	1-5	0-5	85-100	75-100	55-100
	4-8	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-5	85-100	75-100	60-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	8-16	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-5	85-100	75-100	60-100
	16-21	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-5	85-100	75-100	60-100
	21-25	Sandy loam, fine sandy loam, loam	GM, ML, SM	A-2, A-4	0-5	0-8	85-100	75-100	45-95
	25-72	Sandy loam, gravelly fine sandy loam, loam	SM, GM, ML	A-1, A-2, A-4	0-5	0-15	65-92	50-85	30-70
1080B: Becket, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Sandy loam	SM, SC-SM, SC	A-1-b, A-2, A-4	1-5	0-10	70-95	60-92	30-75
	5-8	Sandy loam, gravelly sandy loam, fine sandy loam	SM, SC-SM, SC	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	8-15	Sandy loam, gravelly sandy loam, fine sandy loam	SM, SC, SC-SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	15-26	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand, sandy loam	SM, GM, GP-GM, SP-SM	A-1, A-2	0-5	0-15	70-95	60-92	30-70
	26-38	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GP-GM, GM, SM, SP-SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
	38-72	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
1080C: Becket, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Sandy loam	SC, SM, SC-SM	A-1-b, A-2, A-4	1-5	0-10	70-95	60-92	30-75
	5-8	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SC-SM, SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	8-15	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SC-SM, SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	15-26	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand, sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-5	0-15	70-95	60-92	30-70
	26-38	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, SM, SP-SM, GP-GM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
	38-72	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	SP-SM, SM, GP-GM, GM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
1080E: Becket, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Sandy loam	SC, SC-SM, SM	A-1-b, A-2, A-4	1-5	0-10	70-95	60-92	30-75
	5-8	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SC-SM, SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	8-15	Sandy loam, gravelly sandy loam, fine sandy loam	SM, SC-SM, SC	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	15-26	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand, sandy loam	GM, GP-GM, SP-SM, SM	A-1, A-2	0-5	0-15	70-95	60-92	30-70
	26-38	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GP-GM, GM, SM, SP-SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
	38-72	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, GP-GM, SP-SM, SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
1081B: Skerry, very bouldery-------	0-3	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	5-7	Fine sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	7-11	Fine sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	11-17	Fine sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	17-29	Fine sandy loam, gravelly loamy fine sand, gravelly sandy loam, gravelly loamy sand	SM	A-2, A-1	0-5	0-10	70-95	60-92	30-70
	29-72	Gravelly loamy fine sand, very gravelly loamy sand, gravelly sandy loam, fine sandy loam	SM, SP-SM	A-1, A-2	0-5	0-20	65-95	45-92	20-70
1081C: Skerry, very bouldery-------	0-3	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	5-7	Fine sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	7-11	Fine sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	11-17	Fine sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	17-29	Fine sandy loam, gravelly loamy fine sand, gravelly sandy loam, gravelly loamy sand	SM	A-2, A-1	0-5	0-10	70-95	60-92	30-70
	29-72	Gravelly loamy fine sand, very gravelly loamy sand, gravelly sandy loam, fine sandy loam	SP-SM, SM	A-1, A-2	0-5	0-20	65-95	45-92	20-70

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
1091C:									
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	2-3	Fine sandy loam	SM, ML, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	3-4	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	ML, GM, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	4-8	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	SM, ML, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	8-14	Fine sandy loam, loam, silt loam	SM, ML, GM	A-1, A-2, A-4	0-5	0-15	77-95	65-92	35-80
	14-24	Unweathered bedrock			---	---	---	---	---
Becket, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Sandy loam	SC-SM, SC, SM	A-1-b, A-2, A-4	1-5	0-10	70-95	60-92	30-75
	5-8	Sandy loam, gravelly sandy loam, fine sandy loam	SM, SC, SC-SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	8-15	Sandy loam, gravelly sandy loam, fine sandy loam	SM, SC-SM, SC	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	15-26	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand, sandy loam	SM, SP-SM, GP-GM, GM	A-1, A-2	0-5	0-15	70-95	60-92	30-70
	26-38	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	SP-SM, SM, GM, GP-GM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
	38-72	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
1091E:									
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	2-3	Fine sandy loam	SM, ML, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	3-4	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	SM, ML, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	4-8	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	SM, ML, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	8-14	Fine sandy loam, loam, silt loam	ML, GM, SM	A-1, A-2, A-4	0-5	0-15	77-95	65-92	35-80
	14-24	Unweathered bedrock			---	---	---	---	---
Becket, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Sandy loam	SM, SC-SM, SC	A-1-b, A-2, A-4	1-5	0-10	70-95	60-92	30-75
	5-8	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SC-SM, SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	8-15	Sandy loam, gravelly sandy loam, fine sandy loam	SM, SC, SC-SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
	15-26	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand, sandy loam	SP-SM, GP-GM, SM, GM	A-1, A-2	0-5	0-15	70-95	60-92	30-70
	26-38	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	SP-SM, SM, GP-GM, GM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
	38-72	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	SM, SP-SM, GP-GM, GM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
1118C: Adams-----------	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---
	2-3	Loamy sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	3-5	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	5-9	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	9-14	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	14-17	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	17-32	Sand, coarse sand, gravelly fine sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
	32-58	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	58-72	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
Colton----------	0-1	Moderately decomposed plant material	PT	A-8	0	0	100	100	---
	1-3	Sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2, A-3	0	0-10	45-95	35-92	20-65
	3-4	Gravelly sandy loam, very gravelly sand, gravelly coarse sandy loam, loamy sand	GW-GM, GM, SM	A-1, A-2	0-1	0-10	45-95	35-92	20-65
	4-5	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	GM, GW-GM, SM	A-1	0-1	0-10	45-90	35-75	15-50
	5-13	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	GW-GM, SM, GM	A-1	0-1	0-10	45-90	35-75	15-50
	13-21	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	GM, SP-SM, GW	A-1	0-1	0-15	45-90	35-75	15-50
	21-32	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	SP-SM, GW, GM	A-1	0-1	0-15	45-90	35-75	15-50
	32-80	Stratified very gravelly coarse sand, extremely gravelly coarse sand, very gravelly loamy sand, very cobbly sand	GW, SP, SW, GP	A-1	0-1	0-25	40-75	20-50	10-30
1118D: Adams-----------	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---
	2-3	Loamy sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	3-5	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	5-9	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	9-14	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	14-17	Loamy sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3, A-1-b	0	0	95-100	92-100	45-80
	17-32	Sand, coarse sand, gravelly fine sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	32-58	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
	58-72	Coarse sand, fine sand, gravelly sand	SP-SM, SW-SM, SM	A-3, A-2-4, A-1-b	0	0-1	85-100	70-100	40-80
Colton----------	0-1	Moderately decomposed plant material	PT	A-8	0	0	100	100	---
	1-3	Sandy loam	SP-SM, GP-GM, GM, SM	A-1, A-2, A-3	0	0-10	45-95	35-92	20-65
	3-4	Gravelly sandy loam, very gravelly sand, gravelly coarse sandy loam, loamy sand	SM, GW-GM, GM	A-1, A-2	0-1	0-10	45-95	35-92	20-65
	4-5	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	GM, SM, GW-GM	A-1	0-1	0-10	45-90	35-75	15-50
	5-13	Gravelly loamy sand, very gravelly sand, gravelly coarse sandy loam	GM, GW-GM, SM	A-1	0-1	0-10	45-90	35-75	15-50
	13-21	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	GM, GW, SP-SM	A-1	0-1	0-15	45-90	35-75	15-50
	21-32	Very gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	GW, SP-SM, GM	A-1	0-1	0-15	45-90	35-75	15-50
	32-80	Stratified very gravelly coarse sand, extremely gravelly coarse sand, very gravelly loamy sand, very cobbly sand	GP, GW, SP, SW	A-1	0-1	0-25	40-75	20-50	10-30
1170B: Henniker--------	0-2	Moderately decomposed plant material	PT	A-8	0-1	0-1	100	100	70-100
	2-8	Fine sandy loam	SM	A-2, A-4	0-5	0-10	65-96	50-92	35-85

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	8-20	Gravelly fine sandy loam, sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-15	65-96	50-92	30-85
	20-31	Gravelly fine sandy loam, sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-15	65-96	50-92	30-75
	31-52	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, SM, GP-GM, SP-SM	A-1, A-2	0-5	0-20	65-95	50-92	25-75
	52-72	Gravelly fine sandy loam, sandy loam, loamy sand, gravelly loamy sand	GM, GP-GM, SM, SP-SM	A-1, A-2	0-5	0-20	65-95	50-92	25-75
1170C: Henniker--------	0-2	Moderately decomposed plant material	PT	A-8	0-1	0-1	100	100	70-100
	2-8	Fine sandy loam	SM	A-2, A-4	0-5	0-10	65-96	50-92	35-85
	8-20	Gravelly fine sandy loam, sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-15	65-96	50-92	30-85
	20-31	Gravelly fine sandy loam, sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-15	65-96	50-92	30-75
	31-52	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	SP-SM, SM, GP-GM, GM	A-1, A-2	0-5	0-20	65-95	50-92	25-75
	52-72	Gravelly fine sandy loam, sandy loam, loamy sand, gravelly loamy sand	SP-SM, SM, GM, GP-GM	A-1, A-2	0-5	0-20	65-95	50-92	25-75
1170E: Henniker--------	0-2	Moderately decomposed plant material	PT	A-8	0-1	0-1	100	100	70-100
	2-8	Fine sandy loam	SM	A-2, A-4	0-5	0-10	65-96	50-92	35-85
	8-20	Gravelly fine sandy loam, sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-15	65-96	50-92	30-85
	20-31	Gravelly fine sandy loam, sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-15	65-96	50-92	30-75

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	31-52	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GP-GM, GM, SP-SM, SM	A-1, A-2	0-5	0-20	65-95	50-92	25-75
	52-72	Gravelly fine sandy loam, sandy loam, loamy sand, gravelly loamy sand	GM, SP-SM, SM, GP-GM	A-1, A-2	0-5	0-20	65-95	50-92	25-75
1171B:									
Metacomet-------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	70-100
	2-8	Fine sandy loam	SM	A-2, A-4	0-5	0-10	70-95	55-92	35-80
	8-20	Fine sandy loam, gravelly sandy loam, gravelly very fine sandy loam	SM	A-2, A-4	0-5	0-15	70-95	55-92	35-80
	20-27	Fine sandy loam, gravelly sandy loam, gravelly loamy sand	SM	A-2, A-4	0-5	0-15	70-95	55-92	30-75
	27-31	Cobbly loamy sand, loamy fine sand, very gravelly sandy loam	SP-SM, GM, SM, GP-GM	A-1, A-2	0-5	0-30	45-95	30-92	15-60
	31-45	Gravelly loamy sand, loamy sand, very gravelly sandy loam	GP-GM, SM, SP-SM, GM	A-1, A-2	0-5	0-30	45-95	30-92	15-60
	45-72	Cobbly loamy sand, loamy sand, very gravelly sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-5	0-30	45-95	30-92	15-60
1171C:									
Metacomet-------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	70-100
	2-8	Fine sandy loam	SM	A-2, A-4	0-5	0-10	70-95	55-92	35-80
	8-20	Fine sandy loam, gravelly sandy loam, gravelly very fine sandy loam	SM	A-2, A-4	0-5	0-15	70-95	55-92	35-80
	20-27	Fine sandy loam, gravelly sandy loam, gravelly loamy sand	SM	A-2, A-4	0-5	0-15	70-95	55-92	30-75
	27-31	Cobbly loamy sand, loamy fine sand, very gravelly sandy loam	SP-SM, SM, GP-GM, GM	A-1, A-2	0-5	0-30	45-95	30-92	15-60
	31-45	Gravelly loamy sand, loamy sand, very gravelly sandy loam	SM, GP-GM, GM, SP-SM	A-1, A-2	0-5	0-30	45-95	30-92	15-60

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	45-72	Cobbly loamy sand, loamy sand, very gravelly sandy loam	SP-SM, SM, GM, GP-GM	A-1, A-2	0-5	0-30	45-95	30-92	15-60
1172B: Pillsbury, somewhat poorly drained--------	0-5	Fine sandy loam	SM, CL-ML, ML	A-4, A-6	0-5	0-10	60-95	40-92	25-85
	5-17	Fine sandy loam, loam, gravelly sandy loam	SM, ML	A-2, A-4	0-5	0-15	60-95	40-92	25-85
	17-26	Fine sandy loam, gravelly loam, very gravelly sandy loam	ML, SM	A-2, A-4	0-5	0-15	60-95	40-92	25-85
	26-33	Sandy loam, very gravelly fine sandy loam, gravelly loam	ML, SM	A-2, A-4	0-5	0-15	50-95	40-92	25-85
	33-72	Sandy loam, very gravelly fine sandy loam, gravelly loam	SM, ML	A-2, A-4	0-5	0-15	50-95	40-92	25-85
1178A: Adirondack, very bouldery-------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	50-100
	2-4	Highly decomposed plant material	PT	A-8	0-5	0-10	65-100	55-100	50-100
	4-6	Fine sandy loam	SM, ML	A-4	1-5	0-10	65-95	55-92	30-85
	6-8	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	SM, ML	A-4	0-5	0-10	65-95	55-92	30-85
	8-9	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	SM, ML	A-4	0-5	0-10	65-95	55-92	30-85
	9-18	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	ML, SM	A-4	0-5	0-10	65-95	55-92	30-85
	18-26	Sandy loam, gravelly fine sandy loam, stony loam	ML, SM	A-4, A-2	0-5	0-15	65-95	50-92	30-80
	26-34	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	GM, SM	A-2, A-4, A-1	0-5	0-20	65-95	50-92	25-80
	34-43	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	GM, SM	A-4, A-1, A-2	0-5	0-20	65-95	50-92	25-80

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	43-72	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	GM, SM	A-4, A-1, A-2	0-5	0-20	65-95	50-92	25-80
1178B: Adirondack, very bouldery-------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	50-100
	2-4	Highly decomposed plant material	PT	A-8	0-5	0-10	65-100	55-100	50-100
	4-6	Fine sandy loam	SM, ML	A-4	1-5	0-10	65-95	55-92	30-85
	6-8	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	SM, ML	A-4	0-5	0-10	65-95	55-92	30-85
	8-9	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	SM, ML	A-4	0-5	0-10	65-95	55-92	30-85
	9-18	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	SM, ML	A-4	0-5	0-10	65-95	55-92	30-85
	18-26	Sandy loam, gravelly fine sandy loam, stony loam	ML, SM	A-4, A-2	0-5	0-15	65-95	50-92	30-80
	26-34	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	SM, GM	A-2, A-4, A-1	0-5	0-20	65-95	50-92	25-80
	34-43	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	GM, SM	A-4, A-1, A-2	0-5	0-20	65-95	50-92	25-80
	43-72	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	GM, SM	A-4, A-1, A-2	0-5	0-20	65-95	50-92	25-80
1185A: Wonsqueak, undrained------	0-9	Mucky peat	PT	A-8	0	0	100	100	90-100
	9-24	Muck	PT	A-8	0	0	100	100	90-100
	24-44	Muck	PT	A-8	0	0	100	100	90-100
	44-72	Fine sandy loam, silt loam, silty clay loam	SC, SM, ML, CL-ML, CL	A-4, A-6	0	0-5	85-100	75-100	55-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
1190C:									
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	2-3	Fine sandy loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	3-4	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	4-8	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	ML, GM, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	8-14	Fine sandy loam, loam, silt loam	ML, SM, GM	A-1, A-2, A-4	0-5	0-15	77-95	65-92	35-80
	14-24	Unweathered bedrock			---	---	---	---	---
1190E:									
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	2-3	Fine sandy loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	3-4	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	4-8	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	ML, GM, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	8-14	Fine sandy loam, loam, silt loam	GM, ML, SM	A-1, A-2, A-4	0-5	0-15	77-95	65-92	35-80
	14-24	Unweathered bedrock			---	---	---	---	---
1190F: Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	2-3	Fine sandy loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	3-4	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	SM, ML, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	4-8	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	8-14	Fine sandy loam, loam, silt loam	SM, GM, ML	A-1, A-2, A-4	0-5	0-15	77-95	65-92	35-80
	14-24	Unweathered bedrock			---	---	---	---	---
1193A: Wonsqueak-------	0-9	Mucky peat	PT	A-8	0	0	100	100	90-100
	9-24	Muck	PT	A-8	0	0	100	100	90-100
	24-44	Muck	PT	A-8	0	0	100	100	90-100
	44-72	Fine sandy loam, silt loam, silty clay loam	SC, SM, ML, CL-ML, CL	A-4, A-6	0	0-5	85-100	75-100	55-100
Humaquepts, frequently flooded--------	0-2	Moderately decomposed plant material	PT	A-8	0-1	0-10	65-100	50-100	30-100
	2-9	Mucky silt loam, fine sandy loam, gravelly loamy sand	OL, ML, CL-ML, SM	A-4, A-2, A-6	0-1	0-10	65-100	50-100	25-100
	9-20	Silt loam, loam, fine sandy loam, very gravelly loamy sand	CL-ML, ML, SM, GM	A-4, A-2, A-6	0-2	0-15	50-100	35-100	15-100
	20-23	Loam, silt loam, fine sandy loam, very gravelly loamy sand	ML, SM, GM, SP-SM	A-4, A-2, A-6, A-1	0-2	0-15	50-100	35-100	15-100
	23-60	Loamy sand, fine sandy loam, very gravelly loamy sand, silty clay loam	SM, ML, GM, SP-SM	A-2, A-1, A-4	0-2	0-15	50-100	35-100	15-100
1291C: Becket, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
	3-5	Sandy loam	SC-SM, SM, SC	A-1-b, A-2, A-4	1-5	0-10	70-95	60-92	30-75
	5-8	Sandy loam, gravelly sandy loam, fine sandy loam	SC-SM, SC, SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	8-15	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SC-SM, SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	15-26	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand, sandy loam	SP-SM, SM, GM, GP-GM	A-1, A-2	0-5	0-15	70-95	60-92	30-70
	26-38	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
	38-72	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	2-3	Fine sandy loam	SM, ML, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	3-4	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	SM, ML, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	4-8	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	SM, ML, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	8-14	Fine sandy loam, loam, silt loam	SM, GM, ML	A-1, A-2, A-4	0-5	0-15	77-95	65-92	35-80
	14-24	Unweathered bedrock			---	---	---	---	---
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
1291D: Becket, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Sandy loam	SM, SC-SM, SC	A-1-b, A-2, A-4	1-5	0-10	70-95	60-92	30-75
	5-8	Sandy loam, gravelly sandy loam, fine sandy loam	SM, SC-SM, SC	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	8-15	Sandy loam, gravelly sandy loam, fine sandy loam	SC-SM, SC, SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	15-26	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand, sandy loam	SP-SM, GM, GP-GM, SM	A-1, A-2	0-5	0-15	70-95	60-92	30-70
	26-38	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
	38-72	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GP-GM, GM, SM, SP-SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	2-3	Fine sandy loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	3-4	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	4-8	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	SM, GM, ML	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	8-14	Fine sandy loam, loam, silt loam	GM, ML, SM	A-1, A-2, A-4	0-5	0-15	77-95	65-92	35-80
	14-24	Unweathered bedrock			---	---	---	---	---
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
1292C: Becket, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Sandy loam	SM, SC-SM, SC	A-1-b, A-2, A-4	1-5	0-10	70-95	60-92	30-75
	5-8	Sandy loam, gravelly sandy loam, fine sandy loam	SC-SM, SC, SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	8-15	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SC-SM, SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	15-26	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand, sandy loam	SM, SP-SM, GP-GM, GM	A-1, A-2	0-5	0-15	70-95	60-92	30-70

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	26-38	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	SP-SM, SM, GM, GP-GM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
	38-72	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	SP-SM, SM, GP-GM, GM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
1292E: Becket, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Sandy loam	SM, SC-SM, SC	A-1-b, A-2, A-4	1-5	0-10	70-95	60-92	30-75
	5-8	Sandy loam, gravelly sandy loam, fine sandy loam	SC-SM, SM, SC	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	8-15	Sandy loam, gravelly sandy loam, fine sandy loam	SM, SC-SM, SC	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	15-26	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand, sandy loam	GP-GM, SM, SP-SM, GM	A-1, A-2	0-5	0-15	70-95	60-92	30-70

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	26-38	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
	38-72	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	SM, GP-GM, SP-SM, GM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
1292F: Becket, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Sandy loam	SC, SC-SM, SM	A-1-b, A-2, A-4	1-5	0-10	70-95	60-92	30-75
	5-8	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SC-SM, SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	8-15	Sandy loam, gravelly sandy loam, fine sandy loam	SM, SC, SC-SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	15-26	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand, sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-5	0-15	70-95	60-92	30-70
	26-38	Gravelly loamy fine	SM, SP-SM,	A-1, A-2	0-7	0-20	65-95	50-92	25-70

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passi sieve number--: 4	10	40
	In				Pct	Pct			
		sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, GP-GM						
	38-72	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GP-GM, SM, SP-SM, GM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
1293C: Skerry, very bouldery-------	0-3	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	5-7	Fine sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	7-11	Fine sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	11-17	Fine sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	17-29	Fine sandy loam, gravelly loamy fine sand, gravelly sandy loam, gravelly loamy sand	SM	A-2, A-1	0-5	0-10	70-95	60-92	30-70

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passi sieve number--: 4	10	40
	In				Pct	Pct			
	29-72	Gravelly loamy fine sand, very gravelly loamy sand, gravelly sandy loam, fine sandy loam	SP-SM, SM	A-1, A-2	0-5	0-20	65-95	45-92	20-70
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
1380C: Becket, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Sandy loam	SC, SC-SM, SM	A-1-b, A-2, A-4	1-5	0-10	70-95	60-92	30-75
	5-8	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SC-SM, SM	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	8-15	Sandy loam, gravelly sandy loam, fine sandy loam	SC-SM, SM, SC	A-2, A-4	0-5	0-10	70-95	60-92	30-75
	15-26	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand, sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-5	0-15	70-95	60-92	30-70
	26-38	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-7	0-20	65-95	50-92	25-70

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	38-72	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GP-GM, SM, SP-SM, GM	A-1, A-2	0-7	0-20	65-95	50-92	25-70
Skerry, very bouldery-------	0-3	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	3-5	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	5-7	Fine sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	7-11	Fine sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	11-17	Fine sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	17-29	Fine sandy loam, gravelly loamy fine sand, gravelly sandy loam, gravelly loamy sand	SM	A-2, A-1	0-5	0-10	70-95	60-92	30-70
	29-72	Gravelly loamy fine sand, very gravelly loamy sand, gravelly sandy loam, fine sandy loam	SM, SP-SM	A-1, A-2	0-5	0-20	65-95	45-92	20-70
1391C:									
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	2-3	Fine sandy loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	3-4	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	4-8	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	ML, SM, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	8-14	Fine sandy loam, loam, silt loam	GM, ML, SM	A-1, A-2, A-4	0-5	0-15	77-95	65-92	35-80
	14-24	Unweathered bedrock			---	---	---	---	---
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
Rock outcrop----		Unweathered bedrock			---	---	---	---	---
1391D: Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	2-3	Fine sandy loam	ML, SM, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	3-4	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	GM, SM, ML	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	4-8	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	SM, ML, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	8-14	Fine sandy loam, loam, silt loam	SM, ML, GM	A-1, A-2, A-4	0-5	0-15	77-95	65-92	35-80
	14-24	Unweathered bedrock			---	---	---	---	---
Tunbridge, very bouldery-------	0-1	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-3	Highly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	3-4	Fine sandy loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	4-5	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
	5-8	Fine sandy loam, gravelly sandy loam, cobbly fine sandy loam, loam	SM, ML, GM	A-4, A-2	0-5	0-15	65-95	50-92	30-85
	8-22	Cobbly fine sandy loam, gravelly sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-25	65-95	50-92	30-85
	22-32	Unweathered bedrock			---	---	---	---	---
Rock outcrop----		Unweathered bedrock			---	---	---	---	---
1580B:									
Adirondack, very bouldery-------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	50-100
	2-4	Highly decomposed plant material	PT	A-8	0-5	0-10	65-100	55-100	50-100
	4-6	Fine sandy loam	ML, SM	A-4	1-5	0-10	65-95	55-92	30-85
	6-8	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	ML, SM	A-4	0-5	0-10	65-95	55-92	30-85
	8-9	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	SM, ML	A-4	0-5	0-10	65-95	55-92	30-85
	9-18	Fine sandy loam, sandy loam, gravelly fine sandy loam, stony loam	ML, SM	A-4	0-5	0-10	65-95	55-92	30-85
	18-26	Sandy loam, gravelly fine sandy loam, stony loam	SM, ML	A-4, A-2	0-5	0-15	65-95	50-92	30-80
	26-34	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	SM, GM	A-2, A-4, A-1	0-5	0-20	65-95	50-92	25-80
	34-43	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	SM, GM	A-4, A-1, A-2	0-5	0-20	65-95	50-92	25-80
	43-72	Gravelly loamy sand, gravelly sandy loam, gravelly fine sandy loam	SM, GM	A-4, A-1, A-2	0-5	0-20	65-95	50-92	25-80
Skerry, very bouldery-------	0-3	Moderately decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	3-5	Highly decomposed plant material	PT	A-8	0-5	0-10	70-100	60-100	50-100
	5-7	Fine sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	7-11	Fine sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	11-17	Fine sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-10	70-95	60-92	35-70
	17-29	Fine sandy loam, gravelly loamy fine sand, gravelly sandy loam, gravelly loamy sand	SM	A-2, A-1	0-5	0-10	70-95	60-92	30-70
	29-72	Gravelly loamy fine sand, very gravelly loamy sand, gravelly sandy loam, fine sandy loam	SP-SM, SM	A-1, A-2	0-5	0-20	65-95	45-92	20-70
1591F:									
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	2-3	Fine sandy loam	ML, SM, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	3-4	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	SM, ML, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	4-8	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	ML, SM, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	8-14	Fine sandy loam, loam, silt loam	GM, SM, ML	A-1, A-2, A-4	0-5	0-15	77-95	65-92	35-80
	14-24	Unweathered bedrock			---	---	---	---	---
Berkshire, very bouldery-------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	75-100	70-100	50-100
	2-5	Loam	ML, SM	A-4, A-2	1-5	0-10	75-96	70-92	40-85
	5-6	Fine sandy loam, sandy loam, gravelly loam	ML, SM	A-4, A-2	0-5	0-10	75-96	70-92	40-85
	6-9	Loam, sandy loam, gravelly fine sandy loam	SM, ML	A-2, A-4	0-5	0-15	70-95	50-92	30-80
	9-21	Loam, sandy loam, gravelly fine sandy loam	SM, ML	A-2, A-4	0-5	0-15	70-95	50-92	30-80

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	21-30	Fine sandy loam, sandy loam, gravelly loam	SM, ML	A-4, A-2	0-5	0-15	70-95	50-92	30-80
	30-32	Gravelly fine sandy loam, sandy loam, loam	SM, ML	A-2, A-4	0-5	1-15	70-95	50-92	30-75
	32-74	Gravelly fine sandy loam, sandy loam, loam	SM, ML	A-2, A-4	0-5	1-15	70-95	50-92	30-75
1911C:									
Potsdam, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-8	85-100	75-100	65-100
	2-8	Loam	ML, SM	A-4	1-5	0-8	85-100	75-100	65-100
	8-10	Fine sandy loam, loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-8	85-100	75-100	60-100
	10-13	Loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-8	85-100	75-100	65-100
	13-19	Loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-8	85-100	75-100	65-100
	19-25	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-8	85-100	75-100	65-100
	25-28	Sandy loam, gravelly fine sandy loam, gravelly sandy loam	GM, SM	A-2, A-4	0-5	0-10	65-92	50-86	30-65
	28-72	Sandy loam, gravelly fine sandy loam, gravelly sandy loam	SM, GM	A-4, A-1, A-2	0-5	0-15	65-92	50-86	30-65
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	2-3	Fine sandy loam	SM, ML, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	3-4	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	SM, GM, ML	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	4-8	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	ML, SM, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	8-14	Fine sandy loam, loam, silt loam	GM, ML, SM	A-1, A-2, A-4	0-5	0-15	77-95	65-92	35-80
	14-24	Unweathered bedrock			---	---	---	---	---

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
1911E:									
Potsdam, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-8	85-100	75-100	65-100
	2-8	Loam	ML, SM	A-4	1-5	0-8	85-100	75-100	65-100
	8-10	Fine sandy loam, loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-8	85-100	75-100	60-100
	10-13	Loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-8	85-100	75-100	65-100
	13-19	Loam, very fine sandy loam, silt loam	ML, SM	A-4	0-5	0-8	85-100	75-100	65-100
	19-25	Loam, very fine sandy loam, silt loam	SM, ML	A-4	0-5	0-8	85-100	75-100	65-100
	25-28	Sandy loam, gravelly fine sandy loam, gravelly sandy loam	SM, GM	A-2, A-4	0-5	0-10	65-92	50-86	30-65
	28-72	Sandy loam, gravelly fine sandy loam, gravelly sandy loam	GM, SM	A-4, A-1, A-2	0-5	0-15	65-92	50-86	30-65
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	1-2	Highly decomposed plant material	PT	A-8	0-5	0-10	---	---	---
	2-3	Fine sandy loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	3-4	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	GM, ML, SM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	4-8	Cobbly fine sandy loam, fine sandy loam, loam, silt loam	SM, ML, GM	A-2, A-4	0-5	0-15	70-95	65-92	35-80
	8-14	Fine sandy loam, loam, silt loam	ML, SM, GM	A-1, A-2, A-4	0-5	0-15	77-95	65-92	35-80
	14-24	Unweathered bedrock			---	---	---	---	---
1920B:									
Monadnock, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-2	Fine sandy loam	SC-SM, SM	A-4, A-2	0-5	0-10	85-99	75-99	40-90
	2-7	Sandy loam, fine sandy loam	SC-SM, SM	A-2, A-4	0-5	0-10	85-99	75-99	40-90
	7-14	Fine sandy loam, gravelly fine sandy loam, loam	SC-SM, SM	A-2, A-4	0-5	0-10	75-99	70-96	50-85

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40
	In				Pct	Pct			
	14-27	Gravelly fine sandy loam, fine sandy loam, loam	SM	A-2, A-4	0-5	0-10	75-99	70-96	45-90
	27-41	Very gravelly loamy sand, gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60
	41-72	Gravelly loamy sand, very gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60
1920C: Monadnock, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-2	Fine sandy loam	SC-SM, SM	A-4, A-2	0-5	0-10	85-99	75-99	40-90
	2-7	Sandy loam, fine sandy loam	SC-SM, SM	A-2, A-4	0-5	0-10	85-99	75-99	40-90
	7-14	Fine sandy loam, gravelly fine sandy loam, loam	SC-SM, SM	A-2, A-4	0-5	0-10	75-99	70-96	50-85
	14-27	Gravelly fine sandy loam, fine sandy loam, loam	SM	A-2, A-4	0-5	0-10	75-99	70-96	45-90
	27-41	Very gravelly loamy sand, gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60
	41-72	Gravelly loamy sand, very gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60
1920E: Monadnock, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	100	100	90-100
	1-2	Fine sandy loam	SC-SM, SM	A-4, A-2	0-5	0-10	85-99	75-99	40-90
	2-7	Sandy loam, fine sandy loam	SC-SM, SM	A-2, A-4	0-5	0-10	85-99	75-99	40-90
	7-14	Fine sandy loam, gravelly fine sandy loam, loam	SC-SM, SM	A-2, A-4	0-5	0-10	75-99	70-96	50-85
	14-27	Gravelly fine sandy loam, fine sandy loam, loam	SM	A-2, A-4	0-5	0-10	75-99	70-96	45-90
	27-41	Very gravelly loamy sand, gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	41-72	Gravelly loamy sand, very gravelly loamy sand, loamy fine sand	SW-SM, SP-SM, SM	A-1, A-2	0-5	0-25	55-95	40-92	20-60
1941A: Sabattis, very bouldery-------	0-8	Muck	PT	A-8	0-5	0-10	100	100	70-100
	8-11	Loam	CL-ML, ML, OL, SM	A-4	0-5	0-15	60-98	40-96	25-95
	11-21	Fine sandy loam, cobbly sandy loam, silt loam, very cobbly sandy loam	CL-ML, GM, ML, SM	A-2, A-4	0-5	0-15	60-98	40-96	25-95
	21-31	Sandy loam, gravelly fine sandy loam, loam, very cobbly sandy loam	SM, ML, GM, GC-GM	A-2, A-4	0-5	0-15	60-95	40-92	25-80
	31-37	Very fine sandy loam, gravelly sandy loam, fine sandy loam, very cobbly sandy loam	GM, GC-GM, ML, SM	A-2, A-4	0-5	0-15	60-95	40-92	25-80
	37-72	Gravelly sandy loam, fine sandy loam, very fine sandy loam, very cobbly sandy loam	GC-GM, GM, ML, SM	A-2, A-4	0-5	0-15	60-95	40-92	25-80
2170B: Henniker, very stony----------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	70-100
	2-8	Fine sandy loam	SM	A-2, A-4	0-5	0-10	65-96	50-92	35-85
	8-20	Gravelly fine sandy loam, sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-15	65-96	50-92	30-85
	20-31	Gravelly fine sandy loam, sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-15	65-96	50-92	30-75
	31-52	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, SM, GP-GM, SP-SM	A-1, A-2	0-5	0-20	65-95	50-92	25-75
	52-72	Gravelly fine sandy loam, sandy loam, loamy sand, gravelly loamy sand	SP-SM, GM, GP-GM, SM	A-1, A-2	0-5	0-20	65-95	50-92	25-75

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
2170C: Henniker, very stony----------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	70-100
	2-8	Fine sandy loam	SM	A-2, A-4	0-5	0-10	65-96	50-92	35-85
	8-20	Gravelly fine sandy loam, sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-15	65-96	50-92	30-85
	20-31	Gravelly fine sandy loam, sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-15	65-96	50-92	30-75
	31-52	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-5	0-20	65-95	50-92	25-75
	52-72	Gravelly fine sandy loam, sandy loam, loamy sand, gravelly loamy sand	GM, GP-GM, SM, SP-SM	A-1, A-2	0-5	0-20	65-95	50-92	25-75
2170E: Henniker, very stony----------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	70-100
	2-8	Fine sandy loam	SM	A-2, A-4	0-5	0-10	65-96	50-92	35-85
	8-20	Gravelly fine sandy loam, sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-15	65-96	50-92	30-85
	20-31	Gravelly fine sandy loam, sandy loam, gravelly sandy loam	SM	A-2, A-4	0-5	0-15	65-96	50-92	30-75
	31-52	Gravelly loamy fine sand, gravelly loamy sand, gravelly sandy loam, fine sandy loam	GM, GP-GM, SP-SM, SM	A-1, A-2	0-5	0-20	65-95	50-92	25-75
	52-72	Gravelly fine sandy loam, sandy loam, loamy sand, gravelly loamy sand	SP-SM, SM, GP-GM, GM	A-1, A-2	0-5	0-20	65-95	50-92	25-75
2171B: Metacomet, very stony----------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	70-100
	2-8	Fine sandy loam	SM	A-2, A-4	1-5	0-10	70-95	55-92	35-80

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	8-20	Fine sandy loam, gravelly sandy loam, gravelly very fine sandy loam	SM	A-2, A-4	0-5	0-15	70-95	55-92	35-80
	20-27	Fine sandy loam, gravelly sandy loam, gravelly loamy sand	SM	A-2, A-4	0-5	0-15	70-95	55-92	30-75
	27-31	Cobbly loamy sand, loamy fine sand, very gravelly sandy loam	GP-GM, SM, SP-SM, GM	A-1, A-2	0-5	0-30	45-95	30-92	15-60
	31-45	Gravelly loamy sand, loamy sand, very gravelly sandy loam	SP-SM, SM, GP-GM, GM	A-1, A-2	0-5	0-30	45-95	30-92	15-60
	45-72	Cobbly loamy sand, loamy sand, very gravelly sandy loam	SP-SM, SM, GP-GM, GM	A-1, A-2	0-5	0-30	45-95	30-92	15-60
2171C: Metacomet, very stony----------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	100	100	70-100
	2-8	Fine sandy loam	SM	A-2, A-4	1-5	0-10	70-95	55-92	35-80
	8-20	Fine sandy loam, gravelly sandy loam, gravelly very fine sandy loam	SM	A-2, A-4	0-5	0-15	70-95	55-92	35-80
	20-27	Fine sandy loam, gravelly sandy loam, gravelly loamy sand	SM	A-2, A-4	0-5	0-15	70-95	55-92	30-75
	27-31	Cobbly loamy sand, loamy fine sand, very gravelly sandy loam	SP-SM, SM, GP-GM, GM	A-1, A-2	0-5	0-30	45-95	30-92	15-60
	31-45	Gravelly loamy sand, loamy sand, very gravelly sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-5	0-30	45-95	30-92	15-60
	45-72	Cobbly loamy sand, loamy sand, very gravelly sandy loam	SP-SM, SM, GP-GM, GM	A-1, A-2	0-5	0-30	45-95	30-92	15-60
2172B: Pillsbury, very stony----------	0-5	Fine sandy loam	CL-ML, ML, SM	A-4, A-6	0-5	0-10	60-95	40-92	25-85
	5-17	Fine sandy loam, loam, gravelly sandy loam	SM, ML	A-2, A-4	0-5	0-15	60-95	40-92	25-85
	17-26	Fine sandy loam, gravelly loam, very gravelly sandy loam	SM, ML	A-2, A-4	0-5	0-15	60-95	40-92	25-85

Table 18.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passi sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
	26-33	Sandy loam, very gravelly fine sandy loam, gravelly loam	SM, ML	A-2, A-4	0-5	0-15	50-95	40-92	25-85
	33-72	Sandy loam, very gravelly fine sandy loam, gravelly loam	ML, SM	A-2, A-4	0-5	0-15	50-95	40-92	25-85
DeB:									
Deerfield-------	0-10	Loamy fine sand	SM, SP-SM	A-2, A-4, A-1	0	0	92-100	80-100	40-75
	10-14	Loamy fine sand, loamy sand, sand	SM, SP-SM	A-2, A-1	0	0	92-100	80-100	40-75
	14-26	Loamy fine sand, loamy sand, sand	SM, SP-SM	A-2, A-1	0	0	92-100	80-100	40-75
	26-44	Fine sand, sand, coarse sand	SM	A-2, A-3, A-1	0	0	92-100	70-100	35-75
	44-72	Fine sand, sand, coarse sand	SM	A-2, A-3, A-1	0	0	92-100	70-100	35-75
GP:									
Pits, sand and gravel---------	0-72	Sand, loamy sand, very gravelly sand, very gravelly loamy coarse sand, gravelly loamy sand	SP, SP-SM, SM, GP-GM, GP, GM	A-1, A-2, A-3	0-1	0-15	45-100	20-100	15-75

Table 19.—Physical and Chemical Properties of the Soils

(Entries under "Erosion factors--T" apply to the entire profile. Absence of an entry indicates that data were not

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion
										Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
3A:										
Endoaquolls, frequently flooded-	0-4	15-89	1-73	2-27	1.20-1.50	0.2-6	0.18-0.35	0.0-2.9	2.0-12	.28
	4-11	15-89	1-73	2-27	1.20-1.50	0.2-6	0.18-0.35	0.0-2.9	2.0-12	.28
	11-18	15-89	1-73	1-35	1.20-1.50	0.2-20	0.12-0.25	0.0-2.9	0.0-4.0	.24
	18-24	15-89	1-73	1-35	1.20-1.50	0.2-20	0.15-0.20	0.0-2.9	0.0-2.0	.24
	24-29	15-89	1-73	1-35	1.20-1.50	0.2-20	0.12-0.20	0.0-2.9	0.0-2.0	.24
	29-33	15-89	1-73	1-35	1.20-1.60	0.2-100	0.08-0.18	0.0-2.9	0.0-0.2	.20
	33-60	15-89	1-73	1-35	1.20-1.60	0.2-100	0.08-0.18	0.0-2.9	0.0-0.2	.20
Hapludolls, frequently flooded-	0-2	15-89	1-73	2-27	1.20-1.50	0.2-6	0.18-0.35	0.0-2.9	1.0-7.0	.28
	2-10	15-89	1-73	2-27	1.20-1.50	0.2-6	0.18-0.35	0.0-2.9	1.0-7.0	.28
	10-19	15-89	1-73	1-35	1.20-1.50	0.2-20	0.12-0.25	0.0-2.9	0.0-3.0	.24
	19-29	15-89	1-73	1-35	1.20-1.50	0.2-20	0.15-0.20	0.0-2.9	0.0-2.0	.24
	29-33	15-89	1-73	1-35	1.20-1.50	0.2-20	0.12-0.20	0.0-2.9	0.0-2.0	.24
	33-36	15-89	1-73	1-35	1.20-1.50	0.2-20	0.12-0.20	0.0-2.9	0.0-2.0	.24
	36-40	15-89	1-73	1-35	1.20-1.60	0.2-100	0.08-0.18	0.0-2.9	0.0-0.2	.20
	40-60	15-89	1-73	1-35	1.20-1.60	0.2-100	0.08-0.18	0.0-2.9	0.0-0.2	.20
4C:										
Udorthents, smoothed	0-4	15-75	15-80	5-35	1.00-1.80	0.2-6	0.06-0.24	0.0-2.9	0.5-6.0	.28
	4-17	15-75	15-80	5-35	1.10-1.80	0.2-6	0.06-0.22	0.0-2.9	0.5-6.0	.28
	17-27	15-75	15-80	2-35	1.20-1.90	0.06-6	0.06-0.15	0.0-2.9	0.0-4.0	.28
	27-36	10-75	15-80	1-35	1.30-1.90	0.06-6	0.04-0.13	0.0-5.9	0.0-0.5	.32
	36-72	10-80	15-80	1-35	1.30-1.90	0.06-6	0.04-0.13	0.0-5.9	0.0-0.2	.32
5C:										
Udorthents, refuse substratum---------	0-21	5-85	0-49	2-8	1.00-1.30	1-7	0.14-0.18	0.0-2.9	2.0-6.0	.20
	21-39	5-50	35-80	10-35	1.10-1.40	0.01-2	0.17-0.21	0.0-2.9	1.0-5.0	.28
	39	---	---	---	---	0.0000-0.0015	---	---	---	---
	39-57	0-40	20-80	10-60	1.20-1.45	0.01-0.2	0.12-0.15	3.0-5.9	0.0-0.2	.28
	57-300	---	---	---	---	1-14	---	---	---	---
6A:										
Saprists, frequently ponded-------------	0-51	---	0-80	0-40	0.30-0.80	0.06-6	0.30-0.65	0.0-2.9	85-100	---
	51-72	0-95	0-80	1-50	1.10-1.70	0.06-20	0.03-0.21	0.0-5.9	0.0-5.0	.32
Aquents, frequently ponded-------------	0-9	0-50	0-80	0-40	1.10-1.60	0.06-6	0.30-0.65	0.0-2.9	85-100	---
	9-70	0-95	0-80	1-50	1.10-1.70	0.06-20	0.03-0.21	0.0-5.9	0.0-5.0	.32

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion
										Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
7B:										
Endoaquents, smoothed-----------	0-10	24-85	10-50	5-27	1.20-1.80	0.06-6	0.06-0.15	0.0-2.9	1.0-8.0	.24
	10-16	24-85	10-50	5-27	1.30-1.90	0.06-6	0.04-0.13	0.0-2.9	0.0-4.0	.24
	16-20	24-85	10-50	5-27	1.30-1.90	0.06-6	0.04-0.13	0.0-2.9	0.0-3.0	.24
	20-23	24-90	5-50	3-27	1.30-1.90	0.06-6	0.04-0.13	0.0-2.9	0.0-3.0	.24
	23-36	24-90	5-50	2-27	1.30-1.90	0.06-20	0.04-0.13	0.0-2.9	0.0-2.0	.24
	36-50	24-90	5-50	0-27	1.30-1.90	0.06-20	0.04-0.13	0.0-2.9	0.0-1.0	.20
10A:										
Pleasant Lake-------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	65-100	---
	2-5	---	---	0-17	0.10-0.40	0.2-6	0.35-0.65	0.0-2.9	65-100	---
	5-44	---	---	0-17	0.10-0.40	0.2-6	0.35-0.65	0.0-2.9	65-100	---
	44-78	---	---	0-17	0.10-0.40	0.2-6	0.35-0.65	0.0-2.9	65-100	---
	78-86	---	---	0-17	0.10-0.40	0.2-6	0.35-0.65	0.0-2.9	65-100	---
Burnt Vly-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	65-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	65-100	---
	3-11	---	---	0-17	0.10-0.40	0.2-6	0.35-0.65	0.0-2.9	65-100	---
	11-26	---	---	0-17	0.10-0.40	0.2-6	0.35-0.65	0.0-2.9	65-100	---
	26-30	---	---	0-17	0.10-0.40	0.2-6	0.35-0.65	0.0-2.9	65-100	---
	30-60	70-100	0-29	0-10	1.55-1.75	6-20	0.03-0.10	0.0-2.9	0.0-0.5	.10
11B:										
Hinckley------------	0-6	44-91	0-49	1-8	1.00-1.20	6-20	0.06-0.12	0.0-2.9	2.0-6.0	.05
	6-16	70-100	0-29	1-5	1.20-1.40	6-20	0.01-0.10	0.0-2.9	0.5-3.0	.17
	16-20	70-100	0-29	1-5	1.20-1.40	6-20	0.01-0.10	0.0-2.9	0.1-2.0	.17
	20-72	70-100	0-29	0-3	1.30-1.50	20-100	0.01-0.06	0.0-2.9	0.0-0.2	.10
Windsor-------------	0-2	---	---	0-10	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	2-11	70-100	0-29	1-3	1.00-1.20	6-20	0.09-0.16	0.0-2.9	2.0-6.0	.24
	11-21	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.5-2.0	.17
	21-25	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.1-1.0	.17
	25-72	70-100	0-29	0-2	1.40-1.65	6-100	0.03-0.10	0.0-2.9	0.0-0.2	.10
11C:										
Hinckley------------	0-6	44-91	0-49	1-8	1.00-1.20	6-20	0.06-0.12	0.0-2.9	2.0-6.0	.05
	6-16	70-100	0-29	1-5	1.20-1.40	6-20	0.01-0.10	0.0-2.9	0.5-3.0	.17
	16-20	70-100	0-29	1-5	1.20-1.40	6-20	0.01-0.10	0.0-2.9	0.1-2.0	.17
	20-72	70-100	0-29	0-3	1.30-1.50	20-100	0.01-0.06	0.0-2.9	0.0-0.2	.10
Windsor-------------	0-2	---	---	0-10	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	2-11	70-100	0-29	1-3	1.00-1.20	6-20	0.09-0.16	0.0-2.9	2.0-6.0	.24
	11-21	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.5-2.0	.17
	21-25	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.1-1.0	.17
	25-72	70-100	0-29	0-2	1.40-1.65	6-100	0.03-0.10	0.0-2.9	0.0-0.2	.10

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
11D:										
Hinckley	0-6	44-91	0-49	1-8	1.00-1.20	6-20	0.06-0.12	0.0-2.9	2.0-6.0	.05
	6-16	70-100	0-29	1-5	1.20-1.40	6-20	0.01-0.10	0.0-2.9	0.5-3.0	.17
	16-20	70-100	0-29	1-5	1.20-1.40	6-20	0.01-0.10	0.0-2.9	0.1-2.0	.17
	20-72	70-100	0-29	0-3	1.30-1.50	20-100	0.01-0.06	0.0-2.9	0.0-0.2	.10
Windsor	0-2	---	---	0-10	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	2-11	70-100	0-29	1-3	1.00-1.20	6-20	0.09-0.16	0.0-2.9	2.0-6.0	.24
	11-21	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.5-2.0	.17
	21-25	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.1-1.0	.17
	25-72	70-100	0-29	0-2	1.40-1.65	6-100	0.03-0.10	0.0-2.9	0.0-0.2	.10
11E:										
Hinckley	0-6	44-91	0-49	1-8	1.00-1.20	6-20	0.06-0.12	0.0-2.9	2.0-6.0	.05
	6-16	70-100	0-29	1-5	1.20-1.40	6-20	0.01-0.10	0.0-2.9	0.5-3.0	.17
	16-20	70-100	0-29	1-5	1.20-1.40	6-20	0.01-0.10	0.0-2.9	0.1-2.0	.17
	20-72	70-100	0-29	0-3	1.30-1.50	20-100	0.01-0.06	0.0-2.9	0.0-0.2	.10
Windsor	0-2	---	---	0-10	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	2-11	70-100	0-29	1-3	1.00-1.20	6-20	0.09-0.16	0.0-2.9	2.0-6.0	.24
	11-21	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.5-2.0	.17
	21-25	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.1-1.0	.17
	25-72	70-100	0-29	0-2	1.40-1.65	6-100	0.03-0.10	0.0-2.9	0.0-0.2	.10
13F:										
Lansing	0-8	15-70	15-75	10-25	1.20-1.50	0.6-2	0.15-0.20	0.0-2.9	2.0-6.0	.28
	8-17	15-70	20-75	10-25	1.35-1.65	0.6-2	0.09-0.19	0.0-2.9	1.0-4.0	.32
	17-23	15-52	28-80	18-28	1.35-1.65	0.6-2	0.08-0.16	0.0-2.9	1.0-4.0	.32
	23-36	15-52	28-80	18-28	1.35-1.65	0.6-2	0.08-0.16	0.0-2.9	0.5-2.0	.32
	36-56	15-52	28-80	12-28	1.35-1.65	0.6-2	0.08-0.16	0.0-2.9	0.2-1.0	.32
	56-84	15-75	15-70	10-25	1.55-1.85	0.06-0.2	0.06-0.15	0.0-2.9	0.0-0.2	.24
Mohawk	0-9	15-52	28-80	15-25	1.10-1.40	0.6-2	0.15-0.20	0.0-2.9	4.0-8.0	.28
	9-17	15-52	28-80	15-25	1.35-1.65	0.6-2	0.14-0.19	0.0-2.9	2.0-6.0	.32
	17-23	15-52	28-80	15-27	1.35-1.65	0.6-2	0.14-0.19	0.0-2.9	1.0-5.0	.32
	23-35	5-55	20-80	18-34	1.35-1.65	0.6-2	0.14-0.19	0.0-2.9	1.0-5.0	.32
	35-43	5-55	20-80	15-30	1.35-1.65	0.6-2	0.14-0.19	0.0-2.9	1.0-3.0	.32
	43-53	10-65	15-80	10-30	1.55-1.95	0.06-2	0.10-0.17	0.0-2.9	1.0-3.0	.24
	53-80	10-70	15-80	10-28	1.55-1.95	0.06-2	0.10-0.17	0.0-2.9	0.0-2.0	.24

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
16E:										
Broadalbin----------	0-9	15-85	10-80	10-18	1.00-1.25	0.6-2	0.14-0.21	0.0-2.9	2.0-6.0	.24
	9-17	15-85	10-80	10-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	1.0-4.0	.24
	17-22	15-85	10-80	10-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	0.5-3.0	.24
	22-36	24-85	10-50	10-18	1.60-2.00	0.06-0.2	0.00-0.05	0.0-2.9	0.0-2.0	.24
	36-54	24-85	10-50	10-18	1.40-1.90	0.06-0.2	0.03-0.13	0.0-2.9	0.0-0.2	.24
	54-69	24-85	10-50	10-18	1.60-2.00	0.06-0.2	0.00-0.05	0.0-2.9	0.0-0.2	.24
	69-80	24-85	10-50	10-18	1.40-1.95	0.06-0.2	0.03-0.10	0.0-2.9	0.0-0.2	.24
17D:										
Hollis--------------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.60	0.0-2.9	50-100	---
	1-4	---	---	0-17	0.10-0.40	0.2-6	0.20-0.60	0.0-2.9	35-100	---
	4-9	44-84	1-49	1-17	1.10-1.40	0.6-6	0.12-0.20	0.0-2.9	2.0-6.0	.24
	9-15	24-84	1-49	1-17	1.30-1.55	0.6-6	0.06-0.18	0.0-2.9	0.5-2.0	.24
	15-25	---	---	---	---	0.0000-0.06	---	---	---	---
Rock Outcrop--------	0-10	---	---	---	---	0.0000-0.2	---	---	---	---
18C:										
Chatfield-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.60	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.60	0.0-2.9	35-100	---
	3-7	44-84	1-49	1-17	1.10-1.40	0.6-6	0.10-0.18	0.0-2.9	1.0-4.0	.17
	7-16	1-84	1-87	1-17	1.20-1.50	0.6-6	0.08-0.18	0.0-2.9	0.5-2.0	.20
	16-25	1-84	1-87	1-17	1.20-1.50	0.6-6	0.08-0.18	0.0-2.9	0.5-2.0	.20
	25-35	---	---	---	---	0.0000-0.06	---	---	---	---
Hollis--------------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.60	0.0-2.9	50-100	---
	1-4	---	---	0-17	0.10-0.40	0.2-6	0.20-0.60	0.0-2.9	35-100	---
	4-9	44-84	1-49	1-17	1.10-1.40	0.6-6	0.12-0.20	0.0-2.9	2.0-6.0	.24
	9-15	24-84	1-49	1-17	1.30-1.55	0.6-6	0.06-0.18	0.0-2.9	0.5-2.0	.24
	15-25	---	---	---	---	0.0000-0.06	---	---	---	---
18D:										
Chatfield-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.60	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.60	0.0-2.9	35-100	---
	3-7	44-84	1-49	1-17	1.10-1.40	0.6-6	0.10-0.18	0.0-2.9	1.0-4.0	.17
	7-16	1-84	1-87	1-17	1.20-1.50	0.6-6	0.08-0.18	0.0-2.9	0.5-2.0	.20
	16-25	1-84	1-87	1-17	1.20-1.50	0.6-6	0.08-0.18	0.0-2.9	0.5-2.0	.20
	25-35	---	---	---	---	0.0000-0.06	---	---	---	---
Hollis--------------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.60	0.0-2.9	50-100	---
	1-4	---	---	0-17	0.10-0.40	0.2-6	0.20-0.60	0.0-2.9	35-100	---
	4-9	44-84	1-49	1-17	1.10-1.40	0.6-6	0.12-0.20	0.0-2.9	2.0-6.0	.24
	9-15	24-84	1-49	1-17	1.30-1.55	0.6-6	0.06-0.18	0.0-2.9	0.5-2.0	.24
	15-25	---	---	---	---	0.0000-0.06	---	---	---	---

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion
										Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
21B:										
Galway	0-7	15-52	28-49	7-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	2.0-6.0	.24
	7-16	15-85	10-80	3-17	1.20-1.50	0.6-2	0.08-0.19	0.0-2.9	0.5-4.0	.24
	16-27	15-85	10-80	3-17	1.20-1.50	0.6-2	0.08-0.19	0.0-2.9	0.5-2.0	.24
	27-37	---	---	---	---	0.0000-20	---	---	---	---
21C:										
Galway	0-7	15-52	28-49	7-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	2.0-6.0	.24
	7-16	15-85	10-80	3-17	1.20-1.50	0.6-2	0.08-0.19	0.0-2.9	0.5-4.0	.24
	16-27	15-85	10-80	3-17	1.20-1.50	0.6-2	0.08-0.19	0.0-2.9	0.5-2.0	.24
	27-37	---	---	---	---	0.0000-20	---	---	---	---
22B:										
Georgia	0-8	15-52	28-80	5-18	1.10-1.40	0.6-2	0.13-0.20	0.0-2.9	2.0-6.0	.28
	8-12	15-70	20-80	5-18	1.30-1.55	0.6-2	0.08-0.19	0.0-2.9	1.0-4.0	.24
	12-18	15-70	20-80	5-18	1.30-1.55	0.6-2	0.08-0.14	0.0-2.9	1.0-4.0	.24
	18-24	15-70	20-80	5-18	1.30-1.55	0.6-2	0.08-0.12	0.0-2.9	0.5-2.0	.24
	24-32	15-70	20-80	5-18	1.30-1.60	0.6-2	0.08-0.12	0.0-2.9	0.2-1.0	.24
	32-42	15-75	15-70	5-18	1.30-1.60	0.6-2	0.08-0.12	0.0-2.9	0.0-0.2	.24
	42-60	15-75	15-70	5-18	1.50-1.95	0.06-0.2	0.05-0.09	0.0-2.9	0.0-0.2	.24
24B:										
Farmington	0-7	15-85	0-80	10-27	1.10-1.40	0.6-2	0.11-0.20	0.0-2.9	2.0-6.0	.28
	7-13	15-85	0-80	10-27	1.20-1.50	0.6-2	0.07-0.18	0.0-2.9	1.0-4.0	.32
	13-23	---	---	---	---	0.0000-20	---	---	---	---
24C:										
Farmington	0-7	15-85	0-80	10-27	1.10-1.40	0.6-2	0.11-0.20	0.0-2.9	2.0-6.0	.28
	7-13	15-85	0-80	10-27	1.20-1.50	0.6-2	0.07-0.18	0.0-2.9	1.0-4.0	.32
	13-23	---	---	---	---	0.0000-20	---	---	---	---
25A:										
Wonsqueak, ponded	0-9	---	---	0-17	0.10-0.30	0.2-6	0.20-0.50	0.0-2.9	70-100	---
	9-24	---	---	0-17	0.10-0.30	0.2-6	0.20-0.65	0.0-2.9	70-100	---
	24-44	---	---	0-17	0.10-0.30	0.2-6	0.20-0.65	0.0-2.9	70-100	---
	44-72	0-85	0-80	0-34	1.50-1.70	0.2-2	0.06-0.16	0.0-2.9	0.0-2.0	.32
Colton	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-0.0	75-100	---
	1-3	44-91	0-29	0-15	1.10-1.40	6-100	0.03-0.07	0.0-2.9	2.0-6.0	.10
	3-4	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-4.0	.24
	4-5	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	5-13	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	13-21	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-1.0	.15
	21-32	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-0.5	.15
	32-80	70-100	0-29	0-6	1.45-1.65	20-100	0.01-0.02	0.0-2.9	---	.10

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
Rumney	0-8	15-75	15-80	1-17	1.10-1.40	0.6-2	0.12-0.24	0.0-2.9	4.0-17	.32
	8-12	15-75	15-80	1-17	1.10-1.40	0.6-2	0.12-0.24	0.0-2.9	3.0-10	.32
	12-16	24-75	15-50	1-17	1.15-1.45	0.6-2	0.12-0.20	0.0-2.9	0.5-4.0	.37
	16-34	24-85	15-50	1-17	1.15-1.45	0.6-2	0.12-0.20	0.0-2.9	0.5-4.0	.37
	34-39	24-100	0-50	0-17	1.30-1.50	6-100	0.10-0.16	0.0-2.9	0.0-3.0	.20
	39-72	24-100	0-50	0-15	1.30-1.50	6-100	0.04-0.13	0.0-2.9	0.0-3.0	.20
25D: Farmington, very rocky	0-7	15-85	0-80	10-27	1.10-1.40	0.6-2	0.11-0.20	0.0-2.9	2.0-6.0	.28
	7-13	15-85	0-80	10-27	1.20-1.50	0.6-2	0.07-0.18	0.0-2.9	1.0-4.0	.32
	13-23	---	---	---	---	0.0000-20	---	---	---	---
32B: Mohawk	0-9	15-52	28-80	15-25	1.10-1.40	0.6-2	0.15-0.20	0.0-2.9	4.0-8.0	.28
	9-17	15-52	28-80	15-25	1.35-1.65	0.6-2	0.14-0.19	0.0-2.9	2.0-6.0	.32
	17-23	15-52	28-80	15-27	1.35-1.65	0.6-2	0.14-0.19	0.0-2.9	1.0-5.0	.32
	23-35	5-55	20-80	18-34	1.35-1.65	0.6-2	0.14-0.19	0.0-2.9	1.0-5.0	.32
	35-43	5-55	20-80	15-30	1.35-1.65	0.6-2	0.14-0.19	0.0-2.9	1.0-3.0	.32
	43-53	10-65	15-80	10-30	1.55-1.95	0.06-2	0.10-0.17	0.0-2.9	1.0-3.0	.24
	53-80	10-70	15-80	10-28	1.55-1.95	0.06-2	0.10-0.17	0.0-2.9	0.0-2.0	.24
32C: Mohawk	0-9	15-52	28-80	15-25	1.10-1.40	0.6-2	0.15-0.20	0.0-2.9	4.0-8.0	.28
	9-17	15-52	28-80	15-25	1.35-1.65	0.6-2	0.14-0.19	0.0-2.9	2.0-6.0	.32
	17-23	15-52	28-80	15-27	1.35-1.65	0.6-2	0.14-0.19	0.0-2.9	1.0-5.0	.32
	23-35	5-55	20-80	18-34	1.35-1.65	0.6-2	0.14-0.19	0.0-2.9	1.0-5.0	.32
	35-43	5-55	20-80	15-30	1.35-1.65	0.6-2	0.14-0.19	0.0-2.9	1.0-3.0	.32
	43-53	10-65	15-80	10-30	1.55-1.95	0.06-2	0.10-0.17	0.0-2.9	1.0-3.0	.24
	53-80	10-70	15-80	10-28	1.55-1.95	0.06-2	0.10-0.17	0.0-2.9	0.0-2.0	.24
32D: Mohawk	0-9	15-52	28-80	15-25	1.10-1.40	0.6-2	0.15-0.20	0.0-2.9	4.0-8.0	.28
	9-17	15-52	28-80	15-25	1.35-1.65	0.6-2	0.14-0.19	0.0-2.9	2.0-6.0	.32
	17-23	15-52	28-80	15-27	1.35-1.65	0.6-2	0.14-0.19	0.0-2.9	1.0-5.0	.32
	23-35	5-55	20-80	18-34	1.35-1.65	0.6-2	0.14-0.19	0.0-2.9	1.0-5.0	.32
	35-43	5-55	20-80	15-30	1.35-1.65	0.6-2	0.14-0.19	0.0-2.9	1.0-3.0	.32
	43-53	10-65	15-80	10-30	1.55-1.95	0.06-2	0.10-0.17	0.0-2.9	1.0-3.0	.24
	53-80	10-70	15-80	10-28	1.55-1.95	0.06-2	0.10-0.17	0.0-2.9	0.0-2.0	.24
33B: Angola	0-10	15-50	40-80	8-30	1.10-1.40	0.6-2	0.17-0.22	0.0-2.9	3.0-7.0	.28
	10-14	15-50	28-80	18-35	1.60-1.85	0.06-0.2	0.11-0.19	0.0-2.9	1.0-4.0	.28
	14-24	15-50	28-80	18-35	1.60-1.85	0.06-0.2	0.11-0.19	0.0-2.9	1.0-3.0	.28
	24-29	15-50	28-80	18-35	1.60-1.85	0.06-0.2	0.11-0.19	0.0-2.9	0.5-2.0	.28
	29-32	15-50	28-80	10-30	1.70-1.95	0.06-0.2	0.06-0.13	0.0-2.9	0.0-0.2	.24
	32-42	---	---	---	---	0.0000-0.6	---	---	---	---

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
34A:										
Manheim-------------	0-8	10-52	28-80	15-28	1.10-1.40	0.6-2	0.16-0.21	0.0-2.9	4.0-9.0	.28
	8-18	10-52	28-80	18-30	1.60-1.85	0.2-0.6	0.10-0.19	0.0-2.9	2.0-6.0	.37
	18-28	15-52	28-73	18-30	1.60-1.85	0.2-0.6	0.10-0.19	0.0-2.9	1.0-5.0	.37
	28-44	15-52	28-75	15-30	1.60-1.85	0.2-0.6	0.10-0.19	0.0-2.9	1.0-3.0	.37
	44-72	15-52	28-80	10-28	1.60-1.95	0.06-0.2	0.10-0.16	0.0-2.9	0.0-2.0	.28
34B:										
Manheim-------------	0-8	10-52	28-80	15-28	1.10-1.40	0.6-2	0.16-0.21	0.0-2.9	4.0-9.0	.28
	8-18	10-52	28-80	18-30	1.60-1.85	0.2-0.6	0.10-0.19	0.0-2.9	2.0-6.0	.37
	18-28	15-52	28-73	18-30	1.60-1.85	0.2-0.6	0.10-0.19	0.0-2.9	1.0-5.0	.37
	28-44	15-52	28-75	15-30	1.60-1.85	0.2-0.6	0.10-0.19	0.0-2.9	1.0-3.0	.37
	44-72	15-52	28-80	10-28	1.60-1.95	0.06-0.2	0.10-0.16	0.0-2.9	0.0-2.0	.28
42B:										
Lansing-------------	0-8	15-70	15-75	10-25	1.20-1.50	0.6-2	0.15-0.20	0.0-2.9	2.0-6.0	.28
	8-17	15-70	20-75	10-25	1.35-1.65	0.6-2	0.09-0.19	0.0-2.9	1.0-4.0	.32
	17-23	15-52	28-80	18-28	1.35-1.65	0.6-2	0.08-0.16	0.0-2.9	1.0-4.0	.32
	23-36	15-52	28-80	18-28	1.35-1.65	0.6-2	0.08-0.16	0.0-2.9	0.5-2.0	.32
	36-56	15-52	28-80	12-28	1.35-1.65	0.6-2	0.08-0.16	0.0-2.9	0.2-1.0	.32
	56-84	15-75	15-70	10-25	1.55-1.85	0.06-0.2	0.06-0.15	0.0-2.9	0.0-0.2	.24
42C:										
Lansing-------------	0-8	15-70	15-75	10-25	1.20-1.50	0.6-2	0.15-0.20	0.0-2.9	2.0-6.0	.28
	8-17	15-70	20-75	10-25	1.35-1.65	0.6-2	0.09-0.19	0.0-2.9	1.0-4.0	.32
	17-23	15-52	28-80	18-28	1.35-1.65	0.6-2	0.08-0.16	0.0-2.9	1.0-4.0	.32
	23-36	15-52	28-80	18-28	1.35-1.65	0.6-2	0.08-0.16	0.0-2.9	0.5-2.0	.32
	36-56	15-52	28-80	12-28	1.35-1.65	0.6-2	0.08-0.16	0.0-2.9	0.2-1.0	.32
	56-84	15-75	15-70	10-25	1.55-1.85	0.06-0.2	0.06-0.15	0.0-2.9	0.0-0.2	.24
42D:										
Lansing-------------	0-8	15-70	15-75	10-25	1.20-1.50	0.6-2	0.15-0.20	0.0-2.9	2.0-6.0	.28
	8-17	15-70	20-75	10-25	1.35-1.65	0.6-2	0.09-0.19	0.0-2.9	1.0-4.0	.32
	17-23	15-52	28-80	18-28	1.35-1.65	0.6-2	0.08-0.16	0.0-2.9	1.0-4.0	.32
	23-36	15-52	28-80	18-28	1.35-1.65	0.6-2	0.08-0.16	0.0-2.9	0.5-2.0	.32
	36-56	15-52	28-80	12-28	1.35-1.65	0.6-2	0.08-0.16	0.0-2.9	0.2-1.0	.32
	56-84	15-75	15-70	10-25	1.55-1.85	0.06-0.2	0.06-0.15	0.0-2.9	0.0-0.2	.24
44A:										
Appleton------------	0-8	15-52	20-80	15-27	1.10-1.40	0.6-2	0.12-0.20	0.0-2.9	3.0-6.0	.28
	8-15	15-52	20-80	15-27	1.20-1.50	0.06-0.6	0.07-0.18	0.0-2.9	1.0-4.0	.28
	15-24	15-52	20-80	18-27	1.35-1.65	0.06-0.6	0.07-0.18	0.0-2.9	1.0-3.0	.28
	24-32	15-52	20-80	18-27	1.35-1.65	0.06-0.6	0.07-0.18	0.0-2.9	0.5-2.0	.28
	32-72	15-85	10-80	10-27	1.50-1.85	0.06-0.6	0.07-0.17	0.0-2.9	0.0-0.2	.24

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
44B:										
Appleton------------	0-8	15-52	20-80	15-27	1.10-1.40	0.6-2	0.12-0.20	0.0-2.9	3.0-6.0	.28
	8-15	15-52	20-80	15-27	1.20-1.50	0.06-0.6	0.07-0.18	0.0-2.9	1.0-4.0	.28
	15-24	15-52	20-80	18-27	1.35-1.65	0.06-0.6	0.07-0.18	0.0-2.9	1.0-3.0	.28
	24-32	15-52	20-80	18-27	1.35-1.65	0.06-0.6	0.07-0.18	0.0-2.9	0.5-2.0	.28
	32-72	15-85	10-80	10-27	1.50-1.85	0.06-0.6	0.07-0.17	0.0-2.9	0.0-0.2	.24
47A:										
Ilion---------------	0-7	5-50	35-80	10-35	1.10-1.40	0.2-2	0.17-0.26	0.0-2.9	4.0-12	.28
	7-13	5-50	35-80	10-35	1.00-1.50	0.2-2	0.17-0.21	0.0-2.9	1.0-5.0	.28
	13-21	3-40	40-73	28-35	1.35-1.65	0.03-0.2	0.11-0.17	3.0-5.9	0.5-3.0	.37
	21-37	3-40	40-73	28-35	1.35-1.65	0.03-0.2	0.11-0.17	3.0-5.9	0.2-1.0	.37
	37-72	3-50	30-70	10-35	1.50-1.85	0.03-0.2	0.08-0.14	0.0-2.9	0.0-0.2	.28
47B:										
Ilion---------------	0-7	5-50	35-80	10-35	1.10-1.40	0.2-2	0.17-0.26	0.0-2.9	4.0-12	.28
	7-13	5-50	35-80	10-35	1.00-1.50	0.2-2	0.17-0.21	0.0-2.9	1.0-5.0	.28
	13-21	3-40	40-73	28-35	1.35-1.65	0.03-0.2	0.11-0.17	3.0-5.9	0.5-3.0	.37
	21-37	3-40	40-73	28-35	1.35-1.65	0.03-0.2	0.11-0.17	3.0-5.9	0.2-1.0	.37
	37-72	3-50	30-70	10-35	1.50-1.85	0.03-0.2	0.08-0.14	0.0-2.9	0.0-0.2	.28
49A:										
Fonda---------------	0-6	0-20	40-75	20-40	1.00-1.25	0.6-2	0.16-0.30	0.0-2.9	6.0-20	.49
	6-12	0-20	30-60	35-60	1.20-1.40	0.06-0.2	0.12-0.17	3.0-5.9	1.0-5.0	.28
	12-40	0-20	30-60	35-60	1.20-1.40	0.06-0.2	0.12-0.17	3.0-5.9	1.0-5.0	.28
	40-46	0-25	30-70	35-60	1.15-1.40	0.0015-0.2	0.12-0.17	3.0-5.9	0.0-0.5	.28
	46-54	0-25	30-70	20-60	1.15-1.40	0.0015-0.2	0.12-0.17	3.0-5.9	0.0-0.2	.28
	54-60	0-25	30-70	20-60	1.15-1.40	0.0015-0.2	0.12-0.17	3.0-5.9	0.0-0.2	.28
72B:										
Broadalbin, well drained------------	0-9	15-85	10-80	10-18	1.00-1.25	0.6-2	0.14-0.21	0.0-2.9	2.0-6.0	.24
	9-17	15-85	10-80	10-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	1.0-4.0	.24
	17-22	15-85	10-80	10-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	0.5-3.0	.24
	22-36	24-85	10-50	10-18	1.60-2.00	0.06-0.2	0.00-0.05	0.0-2.9	0.0-2.0	.24
	36-54	24-85	10-50	10-18	1.40-1.90	0.06-0.2	0.03-0.13	0.0-2.9	0.0-0.2	.24
	54-69	24-85	10-50	10-18	1.60-2.00	0.06-0.2	0.00-0.05	0.0-2.9	0.0-0.2	.24
	69-80	24-85	10-50	10-18	1.40-1.95	0.06-0.2	0.03-0.10	0.0-2.9	0.0-0.2	.24
Broadalbin, moderately well drained------------	0-9	15-85	10-80	10-18	1.00-1.25	0.6-2	0.14-0.21	0.0-2.9	2.0-6.0	.24
	9-17	15-85	10-80	10-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	1.0-4.0	.24
	17-22	15-85	10-80	10-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	0.5-3.0	.24
	22-36	24-85	10-50	10-18	1.60-2.00	0.06-0.2	0.00-0.05	0.0-2.9	0.0-2.0	.24
	36-54	24-85	10-50	10-18	1.40-1.90	0.06-0.2	0.03-0.13	0.0-2.9	0.0-0.2	.24
	54-69	24-85	10-50	10-18	1.60-2.00	0.06-0.2	0.00-0.05	0.0-2.9	0.0-0.2	.24

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	69-80	24-85	10-50	10-18	1.40-1.95	0.06-0.2	0.03-0.10	0.0-2.9	0.0-0.2	.24
72C:										
Broadalbin----------	0-9	15-85	10-80	10-18	1.00-1.25	0.6-2	0.14-0.21	0.0-2.9	2.0-6.0	.24
	9-17	15-85	10-80	10-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	1.0-4.0	.24
	17-22	15-85	10-80	10-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	0.5-3.0	.24
	22-36	24-85	10-50	10-18	1.60-2.00	0.06-0.2	0.00-0.05	0.0-2.9	0.0-2.0	.24
	36-54	24-85	10-50	10-18	1.40-1.90	0.06-0.2	0.03-0.13	0.0-2.9	0.0-0.2	.24
	54-69	24-85	10-50	10-18	1.60-2.00	0.06-0.2	0.00-0.05	0.0-2.9	0.0-0.2	.24
	69-80	24-85	10-50	10-18	1.40-1.95	0.06-0.2	0.03-0.10	0.0-2.9	0.0-0.2	.24
72D:										
Broadalbin----------	0-9	15-85	10-80	10-18	1.00-1.25	0.6-2	0.14-0.21	0.0-2.9	2.0-6.0	.24
	9-17	15-85	10-80	10-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	1.0-4.0	.24
	17-22	15-85	10-80	10-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	0.5-3.0	.24
	22-36	24-85	10-50	10-18	1.60-2.00	0.06-0.2	0.00-0.05	0.0-2.9	0.0-2.0	.24
	36-54	24-85	10-50	10-18	1.40-1.90	0.06-0.2	0.03-0.13	0.0-2.9	0.0-0.2	.24
	54-69	24-85	10-50	10-18	1.60-2.00	0.06-0.2	0.00-0.05	0.0-2.9	0.0-0.2	.24
	69-80	24-85	10-50	10-18	1.40-1.95	0.06-0.2	0.03-0.10	0.0-2.9	0.0-0.2	.24
74A:										
Mosherville---------	0-9	24-75	15-70	10-17	1.00-1.25	0.6-2	0.14-0.21	0.0-2.9	3.0-7.0	.24
	9-13	24-75	15-70	10-17	1.20-1.50	0.6-2	0.10-0.20	0.0-2.9	1.0-4.0	.28
	13-27	30-75	15-49	10-17	1.60-2.00	0.06-0.2	0.00-0.10	0.0-2.9	0.0-2.0	.28
	27-37	30-75	15-49	10-17	1.60-2.00	0.06-0.2	0.00-0.10	0.0-2.9	0.0-1.0	.28
	37-42	30-75	15-49	10-17	1.40-1.80	0.06-0.2	0.03-0.10	0.0-2.9	0.0-0.2	.28
	42-72	30-75	15-49	10-17	1.40-1.80	0.06-0.2	0.02-0.10	0.0-2.9	0.0-0.2	.28
74B:										
Mosherville---------	0-9	24-75	15-70	10-17	1.00-1.25	0.6-2	0.14-0.21	0.0-2.9	3.0-7.0	.24
	9-13	24-75	15-70	10-17	1.20-1.50	0.6-2	0.10-0.20	0.0-2.9	1.0-4.0	.28
	13-27	30-75	15-49	10-17	1.60-2.00	0.06-0.2	0.00-0.10	0.0-2.9	0.0-2.0	.28
	27-37	30-75	15-49	10-17	1.60-2.00	0.06-0.2	0.00-0.10	0.0-2.9	0.0-1.0	.28
	37-42	30-75	15-49	10-17	1.40-1.80	0.06-0.2	0.03-0.10	0.0-2.9	0.0-0.2	.28
	42-72	30-75	15-49	10-17	1.40-1.80	0.06-0.2	0.02-0.10	0.0-2.9	0.0-0.2	.28
77A:										
Sun-----------------	0-5	15-75	15-80	5-18	0.60-1.25	0.6-2	0.12-0.24	0.0-2.9	4.0-15	.24
	5-9	15-75	15-80	5-18	0.60-1.50	0.6-2	0.12-0.21	0.0-2.9	3.0-15	.24
	9-15	20-75	15-70	5-18	1.20-1.50	0.6-2	0.08-0.15	0.0-2.9	1.0-5.0	.20
	15-23	20-75	15-70	5-18	1.20-1.50	0.6-2	0.08-0.15	0.0-2.9	0.5-3.0	.20
	23-39	24-85	10-50	4-18	1.35-1.60	0.6-2	0.06-0.14	0.0-2.9	0.2-1.0	.20
	39-80	24-85	10-50	3-18	1.60-2.00	0.06-0.6	0.06-0.11	0.0-2.9	0.0-0.2	.20

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
81B:										
Charlton	0-14	24-51	10-49	3-17	1.00-1.25	0.6-6	0.08-0.23	0.0-2.9	2.0-6.0	.24
	14-27	24-84	10-49	1-17	1.40-1.65	0.6-6	0.07-0.20	0.0-2.9	0.5-2.0	.24
	27-36	24-84	5-49	1-17	1.40-1.65	0.6-6	0.07-0.20	0.0-2.9	0.5-2.0	.24
	36-72	24-84	1-49	1-17	1.45-1.70	0.6-6	0.05-0.16	0.0-2.9	0.0-0.2	.24
81C:										
Charlton	0-14	24-51	10-49	3-17	1.00-1.25	0.6-6	0.08-0.23	0.0-2.9	2.0-6.0	.24
	14-27	24-84	10-49	1-17	1.40-1.65	0.6-6	0.07-0.20	0.0-2.9	0.5-2.0	.24
	27-36	24-84	5-49	1-17	1.40-1.65	0.6-6	0.07-0.20	0.0-2.9	0.5-2.0	.24
	36-72	24-84	1-49	1-17	1.45-1.70	0.6-6	0.05-0.16	0.0-2.9	0.0-0.2	.24
81D:										
Charlton	0-14	24-51	10-49	3-17	1.00-1.25	0.6-6	0.08-0.23	0.0-2.9	2.0-6.0	.24
	14-27	24-84	10-49	1-17	1.40-1.65	0.6-6	0.07-0.20	0.0-2.9	0.5-2.0	.24
	27-36	24-84	5-49	1-17	1.40-1.65	0.6-6	0.07-0.20	0.0-2.9	0.5-2.0	.24
	36-72	24-84	1-49	1-17	1.45-1.70	0.6-6	0.05-0.16	0.0-2.9	0.0-0.2	.24
89A:										
Whitman	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	2-8	15-75	15-80	5-16	0.60-1.25	0.6-2	0.13-0.24	0.0-2.9	4.0-14	.28
	8-10	24-75	15-50	5-16	1.30-1.55	0.6-2	0.10-0.17	0.0-2.9	1.0-5.0	.28
	10-18	24-75	15-50	5-16	1.30-1.55	0.6-2	0.10-0.17	0.0-2.9	0.5-2.0	.28
	18-30	24-75	15-50	1-16	1.60-2.00	0.06-0.2	0.02-0.06	0.0-2.9	0.0-0.2	.28
	30-60	24-75	15-50	1-16	1.60-2.00	0.06-0.2	0.02-0.06	0.0-2.9	0.0-0.2	.24
90B:										
Palatine	0-7	15-52	28-80	5-18	1.10-1.40	0.6-2	0.14-0.25	0.0-2.9	4.0-8.0	.28
	7-20	15-52	28-70	5-18	1.20-1.50	0.6-2	0.09-0.20	0.0-2.9	1.0-5.0	.28
	20-30	15-52	28-70	5-18	1.20-1.50	0.6-2	0.09-0.14	0.0-2.9	0.5-3.0	.28
	30-38	15-52	28-70	5-18	1.70-1.95	0.6-2	0.03-0.08	0.0-2.9	0.2-2.0	.20
	38-48	---	---	---	---	0.0000-0.0015	---	---	---	---
90C:										
Palatine	0-7	15-52	28-80	5-18	1.10-1.40	0.6-2	0.14-0.25	0.0-2.9	4.0-8.0	.28
	7-20	15-52	28-70	5-18	1.20-1.50	0.6-2	0.09-0.20	0.0-2.9	1.0-5.0	.28
	20-30	15-52	28-70	5-18	1.20-1.50	0.6-2	0.09-0.14	0.0-2.9	0.5-3.0	.28
	30-38	15-52	28-70	5-18	1.70-1.95	0.6-2	0.03-0.08	0.0-2.9	0.2-2.0	.20
	38-48	---	---	---	---	0.0000-0.0015	---	---	---	---
90D:										
Palatine	0-7	15-52	28-80	5-18	1.10-1.40	0.6-2	0.14-0.25	0.0-2.9	4.0-8.0	.28
	7-20	15-52	28-70	5-18	1.20-1.50	0.6-2	0.09-0.20	0.0-2.9	1.0-5.0	.28
	20-30	15-52	28-70	5-18	1.20-1.50	0.6-2	0.09-0.14	0.0-2.9	0.5-3.0	.28
	30-38	15-52	28-70	5-18	1.70-1.95	0.6-2	0.03-0.08	0.0-2.9	0.2-2.0	.20
	38-48	---	---	---	---	0.0000-0.0015	---	---	---	---

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
94B:										
Paxton	0-1	---	---	0-17	0.10-0.30	0.6-6	0.20-0.50	0.0-2.9	35-100	---
	1-6	25-75	15-49	1-17	1.00-1.25	0.6-2	0.12-0.20	0.0-2.9	2.0-6.0	.28
	6-15	25-75	15-49	1-17	1.30-1.55	0.6-2	0.10-0.18	0.0-2.9	0.5-3.0	.28
	15-25	25-75	15-49	1-17	1.30-1.55	0.6-2	0.10-0.18	0.0-2.9	0.2-2.0	.28
	25-31	25-75	15-49	1-17	1.35-1.60	0.6-2	0.08-0.18	0.0-2.9	0.2-1.0	.28
	31-63	25-85	10-49	1-17	1.60-2.00	0.0015-0.6	0.05-0.10	0.0-2.9	0.0-0.2	.24
	63-80	25-85	10-49	1-17	1.40-2.00	0.06-0.6	0.05-0.12	0.0-2.9	0.0-0.2	.24
94C:										
Paxton	0-1	---	---	0-17	0.10-0.30	0.6-6	0.20-0.50	0.0-2.9	35-100	---
	1-6	25-75	15-49	1-17	1.00-1.25	0.6-2	0.12-0.20	0.0-2.9	2.0-6.0	.28
	6-15	25-75	15-49	1-17	1.30-1.55	0.6-2	0.10-0.18	0.0-2.9	0.5-3.0	.28
	15-25	25-75	15-49	1-17	1.30-1.55	0.6-2	0.10-0.18	0.0-2.9	0.2-2.0	.28
	25-31	25-75	15-49	1-17	1.35-1.60	0.6-2	0.08-0.18	0.0-2.9	0.2-1.0	.28
	31-63	25-85	10-49	1-17	1.60-2.00	0.0015-0.6	0.05-0.10	0.0-2.9	0.0-0.2	.24
	63-80	25-85	10-49	1-17	1.40-2.00	0.06-0.6	0.05-0.12	0.0-2.9	0.0-0.2	.24
94D:										
Paxton	0-1	---	---	0-17	0.10-0.30	0.6-6	0.20-0.50	0.0-2.9	35-100	---
	1-6	25-75	15-49	1-17	1.00-1.25	0.6-2	0.12-0.20	0.0-2.9	2.0-6.0	.28
	6-15	25-75	15-49	1-17	1.30-1.55	0.6-2	0.10-0.18	0.0-2.9	0.5-3.0	.28
	15-25	25-75	15-49	1-17	1.30-1.55	0.6-2	0.10-0.18	0.0-2.9	0.2-2.0	.28
	25-31	25-75	15-49	1-17	1.35-1.60	0.6-2	0.08-0.18	0.0-2.9	0.2-1.0	.28
	31-63	25-85	10-49	1-17	1.60-2.00	0.0015-0.6	0.05-0.10	0.0-2.9	0.0-0.2	.24
	63-80	25-85	10-49	1-17	1.40-2.00	0.06-0.6	0.05-0.12	0.0-2.9	0.0-0.2	.24
95B:										
Woodbridge	0-5	24-75	15-49	1-17	1.00-1.25	0.6-2	0.10-0.22	0.0-2.9	2.0-6.0	.24
	5-16	24-75	15-49	1-17	1.30-1.55	0.6-2	0.08-0.18	0.0-2.9	1.0-4.0	.32
	16-26	24-75	15-49	1-17	1.30-1.55	0.6-2	0.08-0.18	0.0-2.9	0.5-2.0	.32
	26-72	24-75	15-49	1-17	1.60-2.00	0.0015-0.2	0.05-0.10	0.0-2.9	0.0-0.2	.24
96B:										
Ridgebury	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-7	24-75	15-50	2-17	1.00-1.25	0.6-2	0.10-0.25	0.0-2.9	3.0-7.0	.28
	7-13	24-75	15-50	2-17	1.30-1.55	0.6-2	0.10-0.20	0.0-2.9	1.0-4.0	.32
	13-21	24-75	15-50	2-17	1.30-1.55	0.6-2	0.10-0.20	0.0-2.9	0.5-3.0	.32
	21-28	24-75	15-50	2-17	1.60-2.00	0.0015-0.2	0.03-0.10	0.0-2.9	0.0-0.2	.24
	28-60	24-75	15-50	2-17	1.40-2.00	0.0015-0.2	0.03-0.10	0.0-2.9	0.0-0.2	.24
99A:										
Timakwa, undrained	0-2	---	---	0-17	0.30-0.40	0.2-6	0.35-0.60	---	50-100	---
	2-10	---	---	0-17	0.15-0.30	0.2-6	0.35-0.60	---	50-100	---
	10-18	---	---	0-17	0.15-0.30	0.2-6	0.35-0.60	---	50-100	---
	18-20	---	---	0-17	0.30-0.40	0.2-6	0.35-0.60	---	50-100	---

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	20-25	70-100	0-29	0-14	1.45-1.75	2-100	0.02-0.13	0.0-2.9	0.0-2.0	.17
	25-60	70-100	0-29	0-14	1.35-1.55	2-100	0.02-0.13	0.0-2.9	0.0-0.5	.15
109A:										
Catden, undrained---	0-3	---	---	0-17	0.13-0.23	0.6-6	0.35-0.60	---	50-100	---
	3-9	---	---	0-17	0.13-0.23	0.6-6	0.35-0.60	---	50-100	---
	9-22	---	---	0-17	0.13-0.23	0.6-6	0.35-0.60	---	50-100	---
	22-31	---	---	0-17	0.13-0.23	0.6-6	0.35-0.60	---	50-100	---
	31-42	---	---	0-17	0.13-0.23	0.6-6	0.35-0.60	---	50-100	---
	42-56	---	---	0-17	0.13-0.23	0.6-6	0.35-0.60	---	50-100	---
	56-65	---	---	0-17	0.13-0.23	0.6-6	0.35-0.60	---	50-100	---
	65-78	---	---	0-17	0.13-0.23	0.6-6	0.35-0.60	---	50-100	---
	78-88	20-91	0-80	0-35	1.30-1.90	0.06-100	0.01-0.16	0.0-2.9	0.0-2.0	.20
112A:										
Scio----------------	0-9	0-75	20-80	2-15	1.20-1.50	0.6-2	0.18-0.24	0.0-2.9	2.0-6.0	.49
	9-18	0-75	20-80	2-15	1.20-1.50	0.6-2	0.17-0.20	0.0-2.9	0.5-2.0	.43
	18-30	0-75	20-80	2-15	1.20-1.50	0.6-2	0.17-0.20	0.0-2.9	0.2-1.0	.43
	30-37	0-85	10-80	0-7	1.45-1.65	0.6-2	0.10-0.19	0.0-2.9	0.0-0.2	.43
	37-52	0-100	10-80	0-7	1.45-1.65	0.06-20	0.02-0.19	0.0-2.9	0.0-0.2	.43
	52-80	0-100	10-80	0-7	1.45-1.65	0.06-20	0.02-0.19	0.0-2.9	0.0-0.2	.43
Urban Land----------	0-4	---	---	0-0	---	0.0000-0.0015	0.00-0.00	---	0.0-0.0	---
	4-10	44-100	0-50	0-12	1.50-1.95	0.06-20	0.00-0.20	0.0-2.9	0.0-6.0	.17
	10-22	0-85	0-80	0-16	1.20-1.90	0.2-6	0.15-0.26	0.0-2.9	0.0-2.0	.49
	22-26	0-85	0-80	0-16	1.20-1.90	0.2-6	0.15-0.26	0.0-2.9	0.0-2.0	.49
	26-60	0-85	0-80	0-30	1.20-1.90	0.06-6	0.15-0.26	0.0-2.9	0.0-0.2	.49
114B:										
Windsor-------------	0-2	---	---	0-10	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	2-11	70-100	0-29	1-3	1.00-1.20	6-20	0.09-0.16	0.0-2.9	2.0-6.0	.24
	11-21	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.5-2.0	.17
	21-25	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.1-1.0	.17
	25-72	70-100	0-29	0-2	1.40-1.65	6-100	0.03-0.10	0.0-2.9	0.0-0.2	.10
Urban Land----------	0-4	---	---	0-0	---	0.0000-0.0015	0.00-0.00	---	0.0-0.0	---
	4-10	44-100	0-50	0-12	1.50-1.95	0.06-20	0.00-0.20	0.0-2.9	0.0-6.0	.17
	10-22	0-85	0-80	0-16	1.20-1.90	0.2-6	0.15-0.26	0.0-2.9	0.0-2.0	.49
	22-26	0-85	0-80	0-16	1.20-1.90	0.2-6	0.15-0.26	0.0-2.9	0.0-2.0	.49
	26-60	0-85	0-80	0-30	1.20-1.90	0.06-6	0.15-0.26	0.0-2.9	0.0-0.2	.49
114C:										
Windsor-------------	0-2	---	---	0-10	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	2-11	70-100	0-29	1-3	1.00-1.20	6-20	0.09-0.16	0.0-2.9	2.0-6.0	.24
	11-21	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.5-2.0	.17
	21-25	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.1-1.0	.17
	25-72	70-100	0-29	0-2	1.40-1.65	6-100	0.03-0.10	0.0-2.9	0.0-0.2	.10

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
Urban Land----------	0-4	---	---	0-0	---	0.0000-0.0015	0.00-0.00	---	0.0-0.0	---
	4-10	44-100	0-50	0-12	1.50-1.95	0.06-20	0.00-0.20	0.0-2.9	0.0-6.0	.17
	10-22	0-85	0-80	0-16	1.20-1.90	0.2-6	0.15-0.26	0.0-2.9	0.0-2.0	.49
	22-26	0-85	0-80	0-16	1.20-1.90	0.2-6	0.15-0.26	0.0-2.9	0.0-2.0	.49
	26-60	0-85	0-80	0-30	1.20-1.90	0.06-6	0.15-0.26	0.0-2.9	0.0-0.2	.49
114D:										
Windsor-------------	0-2	---	---	0-10	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	2-11	70-100	0-29	1-3	1.00-1.20	6-20	0.09-0.16	0.0-2.9	2.0-6.0	.24
	11-21	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.5-2.0	.17
	21-25	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.1-1.0	.17
	25-72	70-100	0-29	0-2	1.40-1.65	6-100	0.03-0.10	0.0-2.9	0.0-0.2	.10
Urban Land----------	0-4	---	---	0-0	---	0.0000-0.0015	0.00-0.00	---	0.0-0.0	---
	4-10	44-100	0-50	0-12	1.50-1.95	0.06-20	0.00-0.20	0.0-2.9	0.0-6.0	.17
	10-22	0-85	0-80	0-16	1.20-1.90	0.2-6	0.15-0.26	0.0-2.9	0.0-2.0	.49
	22-26	0-85	0-80	0-16	1.20-1.90	0.2-6	0.15-0.26	0.0-2.9	0.0-2.0	.49
	26-60	0-85	0-80	0-30	1.20-1.90	0.06-6	0.15-0.26	0.0-2.9	0.0-0.2	.49
115B:										
Udipsamments, smoothed-----------	0-4	70-100	0-29	0-5	1.00-1.20	6-20	0.09-0.16	0.0-2.9	0.5-6.0	.20
	4-13	70-100	0-29	0-5	1.40-1.65	6-100	0.04-0.10	0.0-2.9	0.0-2.0	.10
	13-32	70-100	0-29	0-5	1.40-1.65	6-100	0.04-0.10	0.0-2.9	0.0-0.2	.10
	32-37	70-100	0-29	0-5	1.40-1.65	6-100	0.04-0.10	0.0-2.9	0.0-0.2	.10
	37-60	70-100	0-29	0-5	1.40-1.65	6-100	0.04-0.10	0.0-2.9	0.0-0.2	.10
116:										
Urban Land----------	0-4	---	---	0-0	---	0.0000-0.0015	0.00-0.00	---	0.0-0.0	---
	4-10	44-100	0-50	0-12	1.50-1.95	0.06-20	0.00-0.20	0.0-2.9	0.0-6.0	.17
	10-22	0-85	0-80	0-16	1.20-1.90	0.2-6	0.15-0.26	0.0-2.9	0.0-2.0	.49
	22-26	0-85	0-80	0-16	1.20-1.90	0.2-6	0.15-0.26	0.0-2.9	0.0-2.0	.49
	26-60	0-85	0-80	0-30	1.20-1.90	0.06-6	0.15-0.26	0.0-2.9	0.0-0.2	.49
117B:										
Broadalbin, moderately well drained------------	0-9	15-85	10-80	10-18	1.00-1.25	0.6-2	0.14-0.21	0.0-2.9	2.0-6.0	.24
	9-17	15-85	10-80	10-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	1.0-4.0	.24
	17-22	15-85	10-80	10-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	0.5-3.0	.24
	22-36	24-85	10-50	10-18	1.60-2.00	0.06-0.2	0.00-0.05	0.0-2.9	0.0-2.0	.24
	36-54	24-85	10-50	10-18	1.40-1.90	0.06-0.2	0.03-0.13	0.0-2.9	0.0-0.2	.24
	54-69	24-85	10-50	10-18	1.60-2.00	0.06-0.2	0.00-0.05	0.0-2.9	0.0-0.2	.24
	69-80	24-85	10-50	10-18	1.40-1.95	0.06-0.2	0.03-0.10	0.0-2.9	0.0-0.2	.24

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosio Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
Urban Land----------	0-4	---	---	0-0	---	0.0000-0.0015	0.00-0.00	---	0.0-0.0	---
	4-10	44-100	0-50	0-12	1.50-1.95	0.06-20	0.00-0.20	0.0-2.9	0.0-6.0	.17
	10-22	0-85	0-80	0-16	1.20-1.90	0.2-6	0.15-0.26	0.0-2.9	0.0-2.0	.49
	22-26	0-85	0-80	0-16	1.20-1.90	0.2-6	0.15-0.26	0.0-2.9	0.0-2.0	.49
	26-60	0-85	0-80	0-30	1.20-1.90	0.06-6	0.15-0.26	0.0-2.9	0.0-0.2	.49
117C:										
Broadalbin, well drained------------	0-9	15-85	10-80	10-18	1.00-1.25	0.6-2	0.14-0.21	0.0-2.9	2.0-6.0	.24
	9-17	15-85	10-80	10-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	1.0-4.0	.24
	17-22	15-85	10-80	10-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	0.5-3.0	.24
	22-36	24-85	10-50	10-18	1.60-2.00	0.06-0.2	0.00-0.05	0.0-2.9	0.0-2.0	.24
	36-54	24-85	10-50	10-18	1.40-1.90	0.06-0.2	0.03-0.13	0.0-2.9	0.0-0.2	.24
	54-69	24-85	10-50	10-18	1.60-2.00	0.06-0.2	0.00-0.05	0.0-2.9	0.0-0.2	.24
	69-80	24-85	10-50	10-18	1.40-1.95	0.06-0.2	0.03-0.10	0.0-2.9	0.0-0.2	.24
Urban Land----------	0-4	---	---	0-0	---	0.0000-0.0015	0.00-0.00	---	0.0-0.0	---
	4-10	44-100	0-50	0-12	1.50-1.95	0.06-20	0.00-0.20	0.0-2.9	0.0-6.0	.17
	10-22	0-85	0-80	0-16	1.20-1.90	0.2-6	0.15-0.26	0.0-2.9	0.0-2.0	.49
	22-26	0-85	0-80	0-16	1.20-1.90	0.2-6	0.15-0.26	0.0-2.9	0.0-2.0	.49
	26-60	0-85	0-80	0-30	1.20-1.90	0.06-6	0.15-0.26	0.0-2.9	0.0-0.2	.49
130B:										
Hudson--------------	0-6	0-40	40-80	20-40	1.00-1.25	0.2-2	0.16-0.24	3.0-5.9	2.0-6.0	.49
	6-11	0-40	40-80	20-40	1.00-1.25	0.2-2	0.16-0.21	3.0-5.9	2.0-6.0	.49
	11-18	0-30	40-80	25-60	1.15-1.40	0.2-0.6	0.13-0.17	3.0-5.9	0.5-4.0	.28
	18-32	0-20	40-80	35-60	1.15-1.40	0.06-0.2	0.13-0.17	3.0-5.9	0.5-2.0	.28
	32-60	0-30	40-80	25-60	1.15-1.40	0.01-0.2	0.10-0.17	3.0-5.9	0.1-1.0	.28
130C:										
Hudson--------------	0-6	0-40	40-80	20-40	1.00-1.25	0.2-2	0.16-0.24	3.0-5.9	2.0-6.0	.49
	6-11	0-40	40-80	20-40	1.00-1.25	0.2-2	0.16-0.21	3.0-5.9	2.0-6.0	.49
	11-18	0-30	40-80	25-60	1.15-1.40	0.2-0.6	0.13-0.17	3.0-5.9	0.5-4.0	.28
	18-32	0-20	40-80	35-60	1.15-1.40	0.06-0.2	0.13-0.17	3.0-5.9	0.5-2.0	.28
	32-60	0-30	40-80	25-60	1.15-1.40	0.01-0.2	0.10-0.17	3.0-5.9	0.1-1.0	.28
134A:										
Rhinebeck-----------	0-9	0-25	45-80	15-40	1.00-1.25	0.2-2	0.16-0.22	3.0-5.9	3.0-7.0	.49
	9-13	0-20	40-80	15-60	1.15-1.40	0.06-2	0.12-0.18	3.0-5.9	1.0-4.0	.28
	13-27	0-20	40-80	35-60	1.15-1.40	0.06-0.2	0.12-0.14	3.0-5.9	0.5-2.0	.28
	27-34	0-40	20-80	10-60	1.20-1.45	0.06-0.2	0.12-0.15	3.0-5.9	0.0-0.2	.28
	34-37	0-40	20-80	10-60	1.20-1.45	0.06-0.2	0.12-0.15	0.0-5.9	0.0-0.2	.28
	37-72	0-40	20-80	10-60	1.20-1.45	0.06-0.2	0.12-0.15	0.0-5.9	0.0-0.2	.28
134B:										
Rhinebeck-----------	0-9	0-25	45-80	15-40	1.00-1.25	0.2-2	0.16-0.22	3.0-5.9	3.0-7.0	.49
	9-13	0-20	40-80	15-60	1.15-1.40	0.06-2	0.12-0.18	3.0-5.9	1.0-4.0	.28

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	13-27	0-20	40-80	35-60	1.15-1.40	0.06-0.2	0.12-0.14	3.0-5.9	0.5-2.0	.28
	27-34	0-40	20-80	10-60	1.20-1.45	0.06-0.2	0.12-0.15	3.0-5.9	0.0-0.2	.28
	34-37	0-40	20-80	10-60	1.20-1.45	0.06-0.2	0.12-0.15	0.0-5.9	0.0-0.2	.28
	37-72	0-40	20-80	10-60	1.20-1.45	0.06-0.2	0.12-0.15	0.0-5.9	0.0-0.2	.28
135A:										
Churchville---------	0-7	10-60	28-80	15-40	1.00-1.25	0.6-2	0.16-0.21	0.0-2.9	2.0-7.0	.49
	7-11	10-55	28-80	15-40	1.20-1.40	0.06-0.2	0.13-0.17	3.0-5.9	1.0-4.0	.28
	11-20	10-45	28-80	27-60	1.20-1.40	0.06-0.2	0.13-0.17	3.0-5.9	1.0-2.0	.28
	20-25	10-45	28-80	27-60	1.20-1.40	0.06-0.2	0.13-0.17	3.0-5.9	0.5-2.0	.28
	25-41	10-85	15-80	10-35	1.50-1.90	0.0015-0.2	0.07-0.17	0.0-2.9	0.0-0.2	.28
	41-80	10-85	15-80	10-35	1.50-1.90	0.0015-0.2	0.07-0.17	0.0-2.9	0.0-0.2	.28
135B:										
Churchville---------	0-7	10-60	28-80	15-40	1.00-1.25	0.6-2	0.16-0.21	0.0-2.9	2.0-7.0	.49
	7-11	10-55	28-80	15-40	1.20-1.40	0.06-0.2	0.13-0.17	3.0-5.9	1.0-4.0	.28
	11-20	10-45	28-80	27-60	1.20-1.40	0.06-0.2	0.13-0.17	3.0-5.9	1.0-2.0	.28
	20-25	10-45	28-80	27-60	1.20-1.40	0.06-0.2	0.13-0.17	3.0-5.9	0.5-2.0	.28
	25-41	10-85	15-80	10-35	1.50-1.90	0.0015-0.2	0.07-0.17	0.0-2.9	0.0-0.2	.28
	41-80	10-85	15-80	10-35	1.50-1.90	0.0015-0.2	0.07-0.17	0.0-2.9	0.0-0.2	.28
137A:										
Madalin-------------	0-7	0-30	40-80	25-55	1.00-1.25	0.2-0.6	0.16-0.21	3.0-5.9	4.0-12	.49
	7-12	0-20	15-72	27-60	1.20-1.40	0.03-0.2	0.12-0.13	3.0-5.9	1.0-3.0	.28
	12-18	0-20	15-72	27-60	1.20-1.40	0.03-0.2	0.12-0.13	3.0-5.9	0.5-2.0	.28
	18-30	0-20	15-72	27-60	1.20-1.40	0.03-0.2	0.12-0.13	3.0-5.9	0.0-1.0	.28
	30-46	0-20	15-72	27-60	1.15-1.45	0.03-0.2	0.12-0.13	3.0-5.9	0.0-0.2	.28
	46-72	0-30	15-72	27-60	1.15-1.45	0.03-0.2	0.12-0.13	3.0-5.9	0.0-0.2	.28
151B:										
Unadilla------------	0-9	10-84	30-80	1-17	1.10-1.40	0.6-2	0.18-0.24	0.0-2.9	2.0-6.0	.49
	9-16	10-84	30-80	1-17	1.20-1.50	0.6-2	0.17-0.20	0.0-2.9	1.0-4.0	.43
	16-24	10-84	30-80	1-17	1.20-1.50	0.6-2	0.17-0.20	0.0-2.9	0.5-3.0	.43
	24-29	10-84	15-80	1-17	1.45-1.65	0.6-2	0.12-0.16	0.0-2.9	0.0-0.2	.43
	29-33	10-84	10-80	1-17	1.45-1.65	0.6-2	0.10-0.16	0.0-2.9	0.0-0.2	.43
	33-72	10-100	10-80	1-17	1.45-1.65	0.6-20	0.01-0.14	0.0-2.9	0.0-0.2	.43
152A:										
Scio----------------	0-9	0-75	20-80	2-15	1.20-1.50	0.6-2	0.18-0.24	0.0-2.9	2.0-6.0	.49
	9-18	0-75	20-80	2-15	1.20-1.50	0.6-2	0.17-0.20	0.0-2.9	0.5-2.0	.43
	18-30	0-75	20-80	2-15	1.20-1.50	0.6-2	0.17-0.20	0.0-2.9	0.2-1.0	.43
	30-37	0-85	10-80	0-7	1.45-1.65	0.6-2	0.10-0.19	0.0-2.9	0.0-0.2	.43
	37-52	0-100	10-80	0-7	1.45-1.65	0.06-20	0.02-0.19	0.0-2.9	0.0-0.2	.43
	52-80	0-100	10-80	0-7	1.45-1.65	0.06-20	0.02-0.19	0.0-2.9	0.0-0.2	.43

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
152B:										
Scio----------------	0-9	0-75	20-80	2-15	1.20-1.50	0.6-2	0.18-0.24	0.0-2.9	2.0-6.0	.49
	9-18	0-75	20-80	2-15	1.20-1.50	0.6-2	0.17-0.20	0.0-2.9	0.5-2.0	.43
	18-30	0-75	20-80	2-15	1.20-1.50	0.6-2	0.17-0.20	0.0-2.9	0.2-1.0	.43
	30-37	0-85	10-80	0-7	1.45-1.65	0.6-2	0.10-0.19	0.0-2.9	0.0-0.2	.43
	37-52	0-100	10-80	0-7	1.45-1.65	0.06-20	0.02-0.19	0.0-2.9	0.0-0.2	.43
	52-80	0-100	10-80	0-7	1.45-1.65	0.06-20	0.02-0.19	0.0-2.9	0.0-0.2	.43
154A:										
Tonawanda-----------	0-9	0-60	30-90	3-16	1.20-1.50	0.2-2	0.18-0.24	0.0-2.9	3.0-7.0	.49
	9-16	0-60	30-90	3-16	1.20-1.50	0.2-2	0.18-0.22	0.0-2.9	1.0-4.0	.43
	16-25	0-60	30-90	3-16	1.20-1.50	0.2-2	0.18-0.22	0.0-2.9	0.5-3.0	.43
	25-34	0-80	20-90	3-16	1.20-1.50	0.2-2	0.18-0.22	0.0-2.9	0.2-2.0	.43
	34-52	0-90	10-90	1-28	1.20-1.60	0.2-2	0.17-0.21	0.0-2.9	0.0-0.2	.43
	52-80	0-90	10-90	1-28	1.20-1.60	0.2-2	0.17-0.21	0.0-2.9	0.0-0.2	.43
154B:										
Tonawanda-----------	0-9	0-60	30-90	3-16	1.20-1.50	0.2-2	0.18-0.24	0.0-2.9	3.0-7.0	.49
	9-16	0-60	30-90	3-16	1.20-1.50	0.2-2	0.18-0.22	0.0-2.9	1.0-4.0	.43
	16-25	0-60	30-90	3-16	1.20-1.50	0.2-2	0.18-0.22	0.0-2.9	0.5-3.0	.43
	25-34	0-80	20-90	3-16	1.20-1.50	0.2-2	0.18-0.22	0.0-2.9	0.2-2.0	.43
	34-52	0-90	10-90	1-28	1.20-1.60	0.2-2	0.17-0.21	0.0-2.9	0.0-0.2	.43
	52-80	0-90	10-90	1-28	1.20-1.60	0.2-2	0.17-0.21	0.0-2.9	0.0-0.2	.43
157A:										
Birdsall------------	0-7	0-50	40-80	3-16	1.00-1.10	0.2-2	0.17-0.30	0.0-2.9	4.0-14	.49
	7-15	0-50	40-80	3-16	1.20-1.50	0.2-0.6	0.15-0.26	0.0-2.9	1.0-5.0	.43
	15-22	0-50	40-80	3-16	1.20-1.50	0.06-0.2	0.15-0.26	0.0-2.9	0.0-0.5	.43
	22-48	0-50	40-80	3-16	1.20-1.50	0.06-0.2	0.15-0.26	0.0-2.9	0.0-0.2	.43
	48-60	0-50	40-80	3-30	1.20-1.50	0.06-0.2	0.15-0.26	0.0-2.9	0.0-0.2	.43
160A:										
Agawam--------------	0-10	44-85	0-49	1-10	1.10-1.20	2-6	0.15-0.21	0.0-2.9	1.0-5.0	.28
	10-20	44-85	0-49	1-10	1.20-1.40	2-6	0.11-0.21	0.0-2.9	1.0-3.0	.28
	20-26	44-85	0-49	1-6	1.30-1.40	2-6	0.11-0.18	0.0-2.9	0.5-2.5	.28
	26-34	75-100	0-29	1-2	1.30-1.40	6-20	0.02-0.12	0.0-2.9	0.0-0.5	.17
	34-42	75-100	0-29	1-2	1.30-1.40	6-20	0.02-0.12	0.0-2.9	0.0-0.2	.17
	42-62	80-100	0-29	0-1	1.30-1.50	6-100	0.01-0.09	0.0-2.9	0.0-0.2	.10
160B:										
Agawam--------------	0-10	44-85	0-49	1-10	1.10-1.20	2-6	0.15-0.21	0.0-2.9	1.0-5.0	.28
	10-20	44-85	0-49	1-10	1.20-1.40	2-6	0.11-0.21	0.0-2.9	1.0-3.0	.28
	20-26	44-85	0-49	1-6	1.30-1.40	2-6	0.11-0.18	0.0-2.9	0.5-2.5	.28
	26-34	75-100	0-29	1-2	1.30-1.40	6-20	0.02-0.12	0.0-2.9	0.0-0.5	.17
	34-42	75-100	0-29	1-2	1.30-1.40	6-20	0.02-0.12	0.0-2.9	0.0-0.2	.17
	42-62	80-100	0-29	0-1	1.30-1.50	6-100	0.01-0.09	0.0-2.9	0.0-0.2	.10

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
162B:										
Ninigret	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-0.0	50-100	---
	2-4	30-70	25-60	3-12	1.00-1.25	0.6-2	0.15-0.24	0.0-2.9	2.0-6.0	.32
	4-12	30-70	25-60	3-12	1.35-1.60	0.6-2	0.13-0.20	0.0-2.9	0.5-2.0	.43
	12-18	30-70	25-60	3-12	1.35-1.60	0.6-2	0.13-0.20	0.0-2.9	0.5-1.0	.49
	18-25	30-70	25-60	3-12	1.35-1.60	0.6-2	0.13-0.20	0.0-2.9	0.2-1.0	.49
	25-35	70-100	0-29	0-2	1.45-1.70	6-100	0.01-0.11	0.0-2.9	0.0-0.2	.15
	35-50	70-100	0-29	0-2	1.45-1.70	6-100	0.01-0.11	0.0-2.9	0.0-0.2	.15
	50-62	70-100	0-29	0-2	1.45-1.70	6-100	0.01-0.11	0.0-2.9	0.0-0.2	.15
165A:										
Stafford	0-5	60-89	5-49	1-7	1.20-1.50	2-20	0.08-0.15	0.0-2.9	3.0-8.0	.24
	5-10	60-89	5-49	1-7	1.20-1.50	2-20	0.08-0.14	0.0-2.9	2.0-7.0	.24
	10-15	71-91	1-29	0-5	1.20-1.50	2-20	0.08-0.10	0.0-2.9	1.0-4.0	.24
	15-28	71-100	1-29	0-5	1.20-1.50	2-20	0.04-0.08	0.0-2.9	0.2-2.0	.17
	28-50	86-100	0-14	0-5	1.45-1.65	2-20	0.02-0.04	0.0-2.9	0.0-0.2	.17
	50-65	86-100	0-14	0-5	1.45-1.65	2-20	0.02-0.04	0.0-2.9	0.0-0.2	.17
170B:										
Windsor	0-2	---	---	0-10	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	2-11	70-100	0-29	1-3	1.00-1.20	6-20	0.09-0.16	0.0-2.9	2.0-6.0	.24
	11-21	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.5-2.0	.17
	21-25	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.1-1.0	.17
	25-72	70-100	0-29	0-2	1.40-1.65	6-100	0.03-0.10	0.0-2.9	0.0-0.2	.10
170C:										
Windsor	0-2	---	---	0-10	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	2-11	70-100	0-29	1-3	1.00-1.20	6-20	0.09-0.16	0.0-2.9	2.0-6.0	.24
	11-21	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.5-2.0	.17
	21-25	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.1-1.0	.17
	25-72	70-100	0-29	0-2	1.40-1.65	6-100	0.03-0.10	0.0-2.9	0.0-0.2	.10
170D:										
Windsor	0-2	---	---	0-10	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	2-11	70-100	0-29	1-3	1.00-1.20	6-20	0.09-0.16	0.0-2.9	2.0-6.0	.24
	11-21	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.5-2.0	.17
	21-25	70-100	0-29	0-3	1.30-1.55	6-20	0.03-0.10	0.0-2.9	0.1-1.0	.17
	25-72	70-100	0-29	0-2	1.40-1.65	6-100	0.03-0.10	0.0-2.9	0.0-0.2	.10
179A:										
Scarboro	0-8	---	---	0-17	0.70-1.00	6-20	0.20-0.60	0.0-2.9	35-100	---
	8-11	65-100	0-35	0-5	1.35-1.55	6-20	0.02-0.15	0.0-2.9	0.2-3.0	.10
	11-24	65-100	0-35	0-5	1.35-1.55	6-20	0.02-0.13	0.0-2.9	0.0-0.2	.10
	24-45	70-100	0-30	0-2	1.35-1.55	6-100	0.02-0.13	0.0-2.9	0.0-0.2	.10
	45-64	70-100	0-30	0-2	1.35-1.55	6-100	0.01-0.13	0.0-2.9	0.0-0.2	.10

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
182A:										
Elmridge-----------	0-11	24-85	0-49	2-8	1.00-1.30	2-6	0.14-0.18	0.0-2.9	2.0-6.0	.24
	11-20	24-85	0-49	2-8	1.20-1.60	2-6	0.12-0.20	0.0-2.9	0.5-2.0	.24
	20-25	24-85	0-49	2-8	1.20-1.60	2-6	0.12-0.20	0.0-2.9	0.5-2.0	.24
	25-34	0-40	15-60	35-60	1.20-1.45	0.0015-0.2	0.09-0.15	3.0-5.9	0.0-0.2	.43
	34-60	0-40	15-60	35-60	1.20-1.45	0.0015-0.2	0.09-0.15	3.0-5.9	0.0-0.1	.43
182B:										
Elmridge-----------	0-11	24-85	0-49	2-8	1.00-1.30	2-6	0.14-0.18	0.0-2.9	2.0-6.0	.24
	11-20	24-85	0-49	2-8	1.20-1.60	2-6	0.12-0.20	0.0-2.9	0.5-2.0	.24
	20-25	24-85	0-49	2-8	1.20-1.60	2-6	0.12-0.20	0.0-2.9	0.5-2.0	.24
	25-34	0-40	15-60	35-60	1.20-1.45	0.0015-0.2	0.09-0.15	3.0-5.9	0.0-0.2	.43
	34-60	0-40	15-60	35-60	1.20-1.45	0.0015-0.2	0.09-0.15	3.0-5.9	0.0-0.1	.43
187A:										
Aeric Epiaquepts, somewhat poorly drained-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-4	44-84	1-49	1-17	1.00-1.25	2-6	0.18-0.22	0.0-2.9	2.0-8.0	.24
	4-8	24-84	1-49	1-17	1.15-1.50	2-6	0.12-0.20	0.0-2.9	1.0-5.0	.24
	8-13	24-84	1-49	1-17	1.20-1.60	2-6	0.12-0.20	0.0-2.9	0.5-3.0	.24
	13-33	24-84	1-49	1-17	1.20-1.60	2-6	0.12-0.20	0.0-2.9	0.5-2.0	.24
	33-45	0-50	0-80	25-60	1.20-1.45	0.0015-0.2	0.09-0.15	3.0-5.9	0.0-0.2	.43
	45-60	0-50	0-80	25-60	1.20-1.45	0.0015-0.2	0.09-0.15	3.0-5.9	0.0-0.2	.43
Aeric Epiaquepts, poorly drained-----	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-4	44-84	1-49	1-17	1.00-1.25	2-6	0.18-0.22	0.0-2.9	2.0-8.0	.24
	4-8	24-84	1-49	1-17	1.15-1.50	2-6	0.12-0.20	0.0-2.9	1.0-5.0	.24
	8-13	24-84	1-49	1-17	1.20-1.60	2-6	0.12-0.20	0.0-2.9	0.5-3.0	.24
	13-33	24-84	1-49	1-17	1.20-1.60	2-6	0.12-0.20	0.0-2.9	0.5-2.0	.24
	33-45	0-50	0-80	25-60	1.20-1.45	0.0015-0.2	0.09-0.15	3.0-5.9	0.0-0.2	.43
	45-60	0-50	0-80	25-60	1.20-1.45	0.0015-0.2	0.09-0.15	3.0-5.9	0.0-0.2	.43
189A:										
Cheektowaga---------	0-12	44-90	1-49	1-17	1.00-1.25	6-20	0.18-0.22	0.0-2.9	2.0-10	.24
	12-15	71-100	1-29	1-14	1.20-1.50	6-20	0.05-0.07	0.0-2.9	0.0-4.0	.17
	15-21	71-100	1-29	1-14	1.20-1.50	6-20	0.05-0.07	0.0-2.9	0.0-2.0	.17
	21-38	1-44	1-72	28-60	1.10-1.40	0.0015-0.2	0.12-0.17	3.0-5.9	0.0-0.5	.28
	38-72	1-44	1-72	28-60	1.10-1.40	0.0015-0.2	0.12-0.17	3.0-5.9	0.0-0.2	.28
197A:										
Fredon, somewhat poorly drained-----	0-9	15-85	15-80	2-20	1.20-1.40	0.6-2	0.12-0.22	0.0-2.9	3.0-7.0	.24
	9-18	15-85	10-80	2-20	1.20-1.40	0.6-2	0.12-0.20	0.0-2.9	1.0-4.0	.24
	18-26	15-85	10-80	2-20	1.20-1.40	0.6-2	0.12-0.20	0.0-2.9	0.5-3.0	.24
	26-65	10-100	0-45	0-45	1.30-1.50	1-100	0.02-0.06	0.0-2.9	0.0-0.2	.10

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
201B:										
Alton---------------	0-5	24-85	3-50	1-12	1.35-1.65	2-6	0.08-0.15	0.0-2.9	1.0-5.0	.15
	5-8	24-85	3-50	1-12	1.45-1.65	2-6	0.07-0.14	0.0-2.9	1.0-4.0	.17
	8-15	24-85	3-50	1-12	1.45-1.65	2-6	0.07-0.12	0.0-2.9	0.5-2.0	.17
	15-19	24-85	3-49	1-12	1.45-1.65	2-6	0.07-0.12	0.0-2.9	0.5-2.0	.17
	19-25	44-85	3-49	1-12	1.45-1.65	2-6	0.07-0.12	0.0-2.9	0.2-1.0	.17
	25-42	60-95	3-29	0-4	1.45-1.65	6-100	0.02-0.08	0.0-2.9	0.0-0.2	.17
	42-46	70-95	3-29	0-4	1.45-1.65	6-100	0.02-0.08	0.0-2.9	0.0-0.2	.17
	46-72	70-95	3-29	0-4	1.45-1.65	6-100	0.02-0.08	0.0-2.9	0.0-0.2	.17
201C:										
Alton---------------	0-5	24-85	3-50	1-12	1.35-1.65	2-6	0.08-0.15	0.0-2.9	1.0-5.0	.15
	5-8	24-85	3-50	1-12	1.45-1.65	2-6	0.07-0.14	0.0-2.9	1.0-4.0	.17
	8-15	24-85	3-50	1-12	1.45-1.65	2-6	0.07-0.12	0.0-2.9	0.5-2.0	.17
	15-19	24-85	3-49	1-12	1.45-1.65	2-6	0.07-0.12	0.0-2.9	0.5-2.0	.17
	19-25	44-85	3-49	1-12	1.45-1.65	2-6	0.07-0.12	0.0-2.9	0.2-1.0	.17
	25-42	60-95	3-29	0-4	1.45-1.65	6-100	0.02-0.08	0.0-2.9	0.0-0.2	.17
	42-46	70-95	3-29	0-4	1.45-1.65	6-100	0.02-0.08	0.0-2.9	0.0-0.2	.17
	46-72	70-95	3-29	0-4	1.45-1.65	6-100	0.02-0.08	0.0-2.9	0.0-0.2	.17
201D:										
Alton---------------	0-5	24-85	3-50	1-12	1.35-1.65	2-6	0.08-0.15	0.0-2.9	1.0-5.0	.15
	5-8	24-85	3-50	1-12	1.45-1.65	2-6	0.07-0.14	0.0-2.9	1.0-4.0	.17
	8-15	24-85	3-50	1-12	1.45-1.65	2-6	0.07-0.12	0.0-2.9	0.5-2.0	.17
	15-19	24-85	3-49	1-12	1.45-1.65	2-6	0.07-0.12	0.0-2.9	0.5-2.0	.17
	19-25	44-85	3-49	1-12	1.45-1.65	2-6	0.07-0.12	0.0-2.9	0.2-1.0	.17
	25-42	60-95	3-29	0-4	1.45-1.65	6-100	0.02-0.08	0.0-2.9	0.0-0.2	.17
	42-46	70-95	3-29	0-4	1.45-1.65	6-100	0.02-0.08	0.0-2.9	0.0-0.2	.17
	46-72	70-95	3-29	0-4	1.45-1.65	6-100	0.02-0.08	0.0-2.9	0.0-0.2	.17
210A:										
Merrimac------------	0-2	44-85	10-49	3-7	1.10-1.20	2-6	0.14-0.19	0.0-2.9	1.0-6.0	.20
	2-10	44-85	10-49	3-7	1.10-1.20	2-6	0.08-0.19	0.0-2.9	1.0-5.0	.20
	10-20	44-85	10-49	1-4	1.20-1.40	2-6	0.08-0.14	0.0-2.9	0.5-2.0	.24
	20-24	44-85	5-49	1-4	1.20-1.40	2-6	0.08-0.14	0.0-2.9	0.5-2.0	.24
	24-30	44-85	5-49	1-3	1.20-1.40	2-20	0.03-0.12	0.0-2.9	0.2-1.0	.17
	30-36	70-100	0-30	0-3	1.30-1.50	6-100	0.01-0.06	0.0-2.9	0.0-0.2	.10
	36-72	70-100	0-30	0-3	1.30-1.50	6-100	0.01-0.06	0.0-2.9	0.0-0.2	.10
210B:										
Merrimac------------	0-2	44-85	10-49	3-7	1.10-1.20	2-6	0.14-0.19	0.0-2.9	1.0-6.0	.20
	2-10	44-85	10-49	3-7	1.10-1.20	2-6	0.08-0.19	0.0-2.9	1.0-5.0	.20
	10-20	44-85	10-49	1-4	1.20-1.40	2-6	0.08-0.14	0.0-2.9	0.5-2.0	.24
	20-24	44-85	5-49	1-4	1.20-1.40	2-6	0.08-0.14	0.0-2.9	0.5-2.0	.24
	24-30	44-85	5-49	1-3	1.20-1.40	2-20	0.03-0.12	0.0-2.9	0.2-1.0	.17
	30-36	70-100	0-30	0-3	1.30-1.50	6-100	0.01-0.06	0.0-2.9	0.0-0.2	.10
	36-72	70-100	0-30	0-3	1.30-1.50	6-100	0.01-0.06	0.0-2.9	0.0-0.2	.10

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
210C:										
Merrimac------------	0-2	44-85	10-49	3-7	1.10-1.20	2-6	0.14-0.19	0.0-2.9	1.0-6.0	.20
	2-10	44-85	10-49	3-7	1.10-1.20	2-6	0.08-0.19	0.0-2.9	1.0-5.0	.20
	10-20	44-85	10-49	1-4	1.20-1.40	2-6	0.08-0.14	0.0-2.9	0.5-2.0	.24
	20-24	44-85	5-49	1-4	1.20-1.40	2-6	0.08-0.14	0.0-2.9	0.5-2.0	.24
	24-30	44-85	5-49	1-3	1.20-1.40	2-20	0.03-0.12	0.0-2.9	0.2-1.0	.17
	30-36	70-100	0-30	0-3	1.30-1.50	6-100	0.01-0.06	0.0-2.9	0.0-0.2	.10
	36-72	70-100	0-30	0-3	1.30-1.50	6-100	0.01-0.06	0.0-2.9	0.0-0.2	.10
210D:										
Merrimac------------	0-2	44-85	10-49	3-7	1.10-1.20	2-6	0.14-0.19	0.0-2.9	1.0-6.0	.20
	2-10	44-85	10-49	3-7	1.10-1.20	2-6	0.08-0.19	0.0-2.9	1.0-5.0	.20
	10-20	44-85	10-49	1-4	1.20-1.40	2-6	0.08-0.14	0.0-2.9	0.5-2.0	.24
	20-24	44-85	5-49	1-4	1.20-1.40	2-6	0.08-0.14	0.0-2.9	0.5-2.0	.24
	24-30	44-85	5-49	1-3	1.20-1.40	2-20	0.03-0.12	0.0-2.9	0.2-1.0	.17
	30-36	70-100	0-30	0-3	1.30-1.50	6-100	0.01-0.06	0.0-2.9	0.0-0.2	.10
	36-72	70-100	0-30	0-3	1.30-1.50	6-100	0.01-0.06	0.0-2.9	0.0-0.2	.10
211A:										
Burnt Vly-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	65-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	65-100	---
	3-11	---	---	0-17	0.10-0.40	0.2-6	0.35-0.65	0.0-2.9	65-100	---
	11-26	---	---	0-17	0.10-0.40	0.2-6	0.35-0.65	0.0-2.9	65-100	---
	26-30	---	---	0-17	0.10-0.40	0.2-6	0.35-0.65	0.0-2.9	65-100	---
	30-60	70-100	0-29	0-10	1.55-1.75	6-20	0.03-0.10	0.0-2.9	0.0-0.5	.10
Humaquepts----------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	50-95	---
	2-9	5-91	10-80	0-17	1.00-1.60	0.6-6	0.05-0.24	0.0-2.9	4.0-17	.43
	9-20	0-91	0-80	0-35	1.20-1.75	0.2-100	0.02-0.20	0.0-2.9	0.5-3.0	.24
	20-23	0-91	0-80	0-35	1.20-1.75	0.2-100	0.02-0.20	0.0-2.9	0.0-3.0	.24
	23-60	0-91	0-80	0-35	1.20-1.75	0.2-100	0.02-0.20	0.0-2.9	0.0-3.0	.10
Pleasant Lake-------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	65-100	---
	2-5	---	---	0-17	0.10-0.40	0.2-6	0.35-0.65	0.0-2.9	65-100	---
	5-44	---	---	0-17	0.10-0.40	0.2-6	0.35-0.65	0.0-2.9	65-100	---
	44-78	---	---	0-17	0.10-0.40	0.2-6	0.35-0.65	0.0-2.9	65-100	---
	78-86	---	---	0-17	0.10-0.40	0.2-6	0.35-0.65	0.0-2.9	65-100	---
212A:										
Hinckley------------	0-6	44-91	0-49	1-8	1.00-1.20	6-20	0.06-0.12	0.0-2.9	2.0-6.0	.05
	6-16	70-100	0-29	1-5	1.20-1.40	6-20	0.01-0.10	0.0-2.9	0.5-3.0	.17
	16-20	70-100	0-29	1-5	1.20-1.40	6-20	0.01-0.10	0.0-2.9	0.1-2.0	.17
	20-72	70-100	0-29	0-3	1.30-1.50	20-100	0.01-0.06	0.0-2.9	0.0-0.2	.10

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
212B:										
Hinckley------------	0-6	44-91	0-49	1-8	1.00-1.20	6-20	0.06-0.12	0.0-2.9	2.0-6.0	.05
	6-16	70-100	0-29	1-5	1.20-1.40	6-20	0.01-0.10	0.0-2.9	0.5-3.0	.17
	16-20	70-100	0-29	1-5	1.20-1.40	6-20	0.01-0.10	0.0-2.9	0.1-2.0	.17
	20-72	70-100	0-29	0-3	1.30-1.50	20-100	0.01-0.06	0.0-2.9	0.0-0.2	.10
212C:										
Hinckley------------	0-6	44-91	0-49	1-8	1.00-1.20	6-20	0.06-0.12	0.0-2.9	2.0-6.0	.05
	6-16	70-100	0-29	1-5	1.20-1.40	6-20	0.01-0.10	0.0-2.9	0.5-3.0	.17
	16-20	70-100	0-29	1-5	1.20-1.40	6-20	0.01-0.10	0.0-2.9	0.1-2.0	.17
	20-72	70-100	0-29	0-3	1.30-1.50	20-100	0.01-0.06	0.0-2.9	0.0-0.2	.10
232A:										
Teel----------------	0-10	0-70	20-80	3-17	1.15-1.40	0.6-2	0.18-0.24	0.0-2.9	2.0-8.0	.43
	10-16	0-70	20-80	3-17	1.15-1.45	0.6-2	0.17-0.19	0.0-2.9	0.5-4.0	.49
	16-32	0-70	20-80	3-17	1.15-1.45	0.6-2	0.17-0.19	0.0-2.9	0.5-3.0	.49
	32-40	0-70	20-80	3-17	1.25-1.55	0.6-2	0.12-0.12	0.0-2.9	0.0-0.5	.49
	40-45	0-90	10-80	1-30	1.25-1.55	0.6-20	0.04-0.12	0.0-2.9	0.0-0.2	.49
	45-56	0-90	0-80	0-30	1.25-1.55	0.6-20	0.04-0.12	0.0-2.9	0.0-0.2	.49
	56-62	0-90	0-80	0-30	1.25-1.55	0.6-20	0.04-0.12	0.0-2.9	0.0-0.2	.49
244A:										
Darien--------------	0-11	15-52	28-80	15-35	1.10-1.40	0.2-0.6	0.15-0.20	0.0-2.9	3.0-8.0	.28
	11-14	15-52	28-80	20-35	1.50-1.75	0.2-0.6	0.09-0.16	0.0-2.9	1.0-4.0	.24
	14-23	15-45	28-73	28-35	1.50-1.75	0.2-0.6	0.09-0.16	0.0-2.9	1.0-3.0	.24
	23-32	15-50	28-73	20-35	1.50-1.75	0.2-0.6	0.09-0.16	0.0-2.9	0.5-2.0	.24
	32-60	15-52	28-80	20-35	1.50-1.85	0.06-0.2	0.05-0.14	0.0-2.9	0.0-0.2	.24
244B:										
Darien--------------	0-11	15-52	28-80	15-35	1.10-1.40	0.2-0.6	0.15-0.20	0.0-2.9	3.0-8.0	.28
	11-14	15-52	28-80	20-35	1.50-1.75	0.2-0.6	0.09-0.16	0.0-2.9	1.0-4.0	.24
	14-23	15-45	28-73	28-35	1.50-1.75	0.2-0.6	0.09-0.16	0.0-2.9	1.0-3.0	.24
	23-32	15-50	28-73	20-35	1.50-1.75	0.2-0.6	0.09-0.16	0.0-2.9	0.5-2.0	.24
	32-60	15-52	28-80	20-35	1.50-1.85	0.06-0.2	0.05-0.14	0.0-2.9	0.0-0.2	.24
363A:										
Adams---------------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-3	70-91	0-29	0-15	1.00-1.30	6-20	0.03-0.20	0.0-2.9	0.1-4.0	.15
	3-5	70-100	0-29	0-15	1.00-1.30	6-20	0.10-0.35	0.0-2.9	4.0-10	.17
	5-9	70-100	0-29	0-15	1.00-1.30	6-20	0.04-0.30	0.0-2.9	4.0-10	.17
	9-14	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	14-17	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	17-32	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-2.0	.17
	32-58	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
	58-72	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
363B:										
Adams---------------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-3	70-91	0-29	0-15	1.00-1.30	6-20	0.03-0.20	0.0-2.9	0.1-4.0	.15
	3-5	70-100	0-29	0-15	1.00-1.30	6-20	0.10-0.35	0.0-2.9	4.0-10	.17
	5-9	70-100	0-29	0-15	1.00-1.30	6-20	0.04-0.30	0.0-2.9	4.0-10	.17
	9-14	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	14-17	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	17-32	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-2.0	.17
	32-58	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
	58-72	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
363D:										
Adams---------------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-3	70-91	0-29	0-15	1.00-1.30	6-20	0.03-0.20	0.0-2.9	0.1-4.0	.15
	3-5	70-100	0-29	0-15	1.00-1.30	6-20	0.10-0.35	0.0-2.9	4.0-10	.17
	5-9	70-100	0-29	0-15	1.00-1.30	6-20	0.04-0.30	0.0-2.9	4.0-10	.17
	9-14	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	14-17	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	17-32	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-2.0	.17
	32-58	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
	58-72	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
363F:										
Adams---------------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-3	70-91	0-29	0-15	1.00-1.30	6-20	0.03-0.20	0.0-2.9	0.1-4.0	.15
	3-5	70-100	0-29	0-15	1.00-1.30	6-20	0.10-0.35	0.0-2.9	4.0-10	.17
	5-9	70-100	0-29	0-15	1.00-1.30	6-20	0.04-0.30	0.0-2.9	4.0-10	.17
	9-14	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	14-17	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	17-32	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-2.0	.17
	32-58	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
	58-72	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
365A:										
Naumburg------------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-0.0	50-100	---
	1-5	44-91	5-40	1-5	1.20-1.50	6-20	0.08-0.18	0.0-2.9	3.0-10	.20
	5-8	44-91	5-40	1-5	1.20-1.50	6-20	0.05-0.12	0.0-2.9	1.0-4.0	.20
	8-10	70-95	5-29	1-5	1.20-1.50	6-20	0.06-0.16	0.0-2.9	4.0-10	.17
	10-16	70-100	5-29	1-5	1.20-1.50	6-20	0.06-0.12	0.0-2.9	1.0-8.0	.17
	16-19	70-100	0-29	1-5	1.20-1.50	6-20	0.04-0.08	0.0-2.9	0.0-2.0	.17
	19-72	70-100	0-29	0-5	1.45-1.65	6-100	0.04-0.06	0.0-2.9	0.0-0.2	.17
Croghan-------------	0-2	---	0-49	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-0.0	50-100	---
	2-3	60-100	0-35	0-5	1.10-1.50	2-20	0.05-0.25	0.0-2.9	2.0-9.0	.15
	3-5	60-100	0-30	0-5	1.20-1.50	6-100	0.03-0.30	0.0-2.9	4.0-10	.17
	5-11	70-100	0-30	0-5	1.20-1.50	6-100	0.03-0.20	0.0-2.9	1.0-8.0	.17
	11-30	70-100	0-29	0-5	1.20-1.50	6-100	0.03-0.10	0.0-2.9	1.0-8.0	.17

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	30-36	70-100	0-29	0-5	1.20-1.50	6-100	0.03-0.06	0.0-2.9	0.0-0.2	.17
	36-60	70-100	0-29	0-5	1.20-1.50	20-100	0.03-0.06	0.0-2.9	0.0-0.2	.17
368A:										
Searsport-----------	0-1	---	---	0-17	0.55-0.75	0.2-6	0.20-0.60	---	100-100	---
	1-9	---	---	0-17	0.55-0.75	0.2-6	0.20-0.60	---	35-100	---
	9-17	70-100	0-29	0-2	1.00-1.55	6-100	0.01-0.09	0.0-2.9	0.0-2.0	.15
	17-55	70-100	0-29	0-2	1.35-1.55	6-100	0.01-0.09	0.0-2.9	0.0-0.2	.15
	55-72	70-100	0-29	0-2	1.35-1.55	6-100	0.01-0.09	0.0-2.9	0.0-0.2	.15
Wonsqueak-----------	0-9	---	---	0-17	0.10-0.30	0.2-6	0.20-0.50	0.0-2.9	70-100	---
	9-24	---	---	0-17	0.10-0.30	0.2-6	0.20-0.65	0.0-2.9	70-100	---
	24-44	---	---	0-17	0.10-0.30	0.2-6	0.20-0.65	0.0-2.9	70-100	---
	44-72	0-85	0-80	0-34	1.50-1.70	0.2-2	0.06-0.16	0.0-2.9	0.0-2.0	.32
Naumburg------------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-0.0	50-100	---
	1-5	44-91	5-40	1-5	1.20-1.50	6-20	0.08-0.18	0.0-2.9	3.0-10	.20
	5-8	44-91	5-40	1-5	1.20-1.50	6-20	0.05-0.12	0.0-2.9	1.0-4.0	.20
	8-10	70-95	5-29	1-5	1.20-1.50	6-20	0.06-0.16	0.0-2.9	4.0-10	.17
	10-16	70-100	5-29	1-5	1.20-1.50	6-20	0.06-0.12	0.0-2.9	1.0-8.0	.17
	16-19	70-100	0-29	1-5	1.20-1.50	6-20	0.04-0.08	0.0-2.9	0.0-2.0	.17
	19-72	70-100	0-29	0-5	1.45-1.65	6-100	0.04-0.06	0.0-2.9	0.0-0.2	.17
375A:										
Colton--------------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-0.0	75-100	---
	1-3	44-91	0-29	0-15	1.10-1.40	6-100	0.03-0.07	0.0-2.9	2.0-6.0	.10
	3-4	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-4.0	.24
	4-5	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	5-13	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	13-21	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-1.0	.15
	21-32	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-0.5	.15
	32-80	70-100	0-29	0-6	1.45-1.65	20-100	0.01-0.02	0.0-2.9	---	.10
Adams---------------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-3	70-91	0-29	0-15	1.00-1.30	6-20	0.03-0.20	0.0-2.9	0.1-4.0	.15
	3-5	70-100	0-29	0-15	1.00-1.30	6-20	0.10-0.35	0.0-2.9	4.0-10	.17
	5-9	70-100	0-29	0-15	1.00-1.30	6-20	0.04-0.30	0.0-2.9	4.0-10	.17
	9-14	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	14-17	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	17-32	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-2.0	.17
	32-58	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
	58-72	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
375C:										
Colton	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-0.0	75-100	---
	1-3	44-91	0-29	0-15	1.10-1.40	6-100	0.03-0.07	0.0-2.9	2.0-6.0	.10
	3-4	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-4.0	.24
	4-5	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	5-13	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	13-21	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-1.0	.15
	21-32	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-0.5	.15
	32-80	70-100	0-29	0-6	1.45-1.65	20-100	0.01-0.02	0.0-2.9	---	.10
Adams	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-3	70-91	0-29	0-15	1.00-1.30	6-20	0.03-0.20	0.0-2.9	0.1-4.0	.15
	3-5	70-100	0-29	0-15	1.00-1.30	6-20	0.10-0.35	0.0-2.9	4.0-10	.17
	5-9	70-100	0-29	0-15	1.00-1.30	6-20	0.04-0.30	0.0-2.9	4.0-10	.17
	9-14	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	14-17	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	17-32	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-2.0	.17
	32-58	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
	58-72	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
375D:										
Colton	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-0.0	75-100	---
	1-3	44-91	0-29	0-15	1.10-1.40	6-100	0.03-0.07	0.0-2.9	2.0-6.0	.10
	3-4	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-4.0	.24
	4-5	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	5-13	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	13-21	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-1.0	.15
	21-32	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-0.5	.15
	32-80	70-100	0-29	0-6	1.45-1.65	20-100	0.01-0.02	0.0-2.9	---	.10
Adams	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-3	70-91	0-29	0-15	1.00-1.30	6-20	0.03-0.20	0.0-2.9	0.1-4.0	.15
	3-5	70-100	0-29	0-15	1.00-1.30	6-20	0.10-0.35	0.0-2.9	4.0-10	.17
	5-9	70-100	0-29	0-15	1.00-1.30	6-20	0.04-0.30	0.0-2.9	4.0-10	.17
	9-14	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	14-17	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	17-32	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-2.0	.17
	32-58	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
	58-72	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
650C:										
Monadnock, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	40-85	20-50	2-17	0.80-1.20	0.6-2	0.12-0.22	0.0-2.9	2.0-8.0	.20
	2-7	40-85	20-50	1-17	0.80-1.20	0.6-2	0.10-0.20	0.0-2.9	1.0-4.0	.20
	7-14	40-85	20-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	1.0-8.0	.28
	14-27	40-91	10-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	0.2-2.0	.28

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	27-41	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
	41-72	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
Adams----------------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-3	70-91	0-29	0-15	1.00-1.30	6-20	0.03-0.20	0.0-2.9	0.1-4.0	.15
	3-5	70-100	0-29	0-15	1.00-1.30	6-20	0.10-0.35	0.0-2.9	4.0-10	.17
	5-9	70-100	0-29	0-15	1.00-1.30	6-20	0.04-0.30	0.0-2.9	4.0-10	.17
	9-14	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	14-17	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	17-32	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-2.0	.17
	32-58	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
	58-72	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
Colton---------------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-0.0	75-100	---
	1-3	44-91	0-29	0-15	1.10-1.40	6-100	0.03-0.07	0.0-2.9	2.0-6.0	.10
	3-4	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-4.0	.24
	4-5	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	5-13	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	13-21	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-1.0	.15
	21-32	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-0.5	.15
	32-80	70-100	0-29	0-6	1.45-1.65	20-100	0.01-0.02	0.0-2.9	---	.10
650D:										
Monadnock, very										
bouldery------------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	40-85	20-50	2-17	0.80-1.20	0.6-2	0.12-0.22	0.0-2.9	2.0-8.0	.20
	2-7	40-85	20-50	1-17	0.80-1.20	0.6-2	0.10-0.20	0.0-2.9	1.0-4.0	.20
	7-14	40-85	20-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	1.0-8.0	.28
	14-27	40-91	10-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	0.2-2.0	.28
	27-41	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
	41-72	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
Adams----------------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-3	70-91	0-29	0-15	1.00-1.30	6-20	0.03-0.20	0.0-2.9	0.1-4.0	.15
	3-5	70-100	0-29	0-15	1.00-1.30	6-20	0.10-0.35	0.0-2.9	4.0-10	.17
	5-9	70-100	0-29	0-15	1.00-1.30	6-20	0.04-0.30	0.0-2.9	4.0-10	.17
	9-14	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	14-17	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	17-32	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-2.0	.17
	32-58	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
	58-72	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
Colton---------------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-0.0	75-100	---
	1-3	44-91	0-29	0-15	1.10-1.40	6-100	0.03-0.07	0.0-2.9	2.0-6.0	.10
	3-4	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-4.0	.24
	4-5	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	5-13	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	13-21	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-1.0	.15
	21-32	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-0.5	.15
	32-80	70-100	0-29	0-6	1.45-1.65	20-100	0.01-0.02	0.0-2.9	---	.10
651C:										
Monadnock, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	40-85	20-50	2-17	0.80-1.20	0.6-2	0.12-0.22	0.0-2.9	2.0-8.0	.20
	2-7	40-85	20-50	1-17	0.80-1.20	0.6-2	0.10-0.20	0.0-2.9	1.0-4.0	.20
	7-14	40-85	20-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	1.0-8.0	.28
	14-27	40-91	10-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	0.2-2.0	.28
	27-41	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
	41-72	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
Tunbridge, rolling, very bouldery------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
Sabattis, very bouldery-----------	0-8	---	---	0-17	0.10-0.40	0.6-6	0.20-0.65	---	35-100	---
	8-11	15-75	15-70	2-17	0.80-1.10	0.6-6	0.14-0.25	0.0-2.9	4.0-30	.20
	11-21	15-75	15-70	2-17	1.30-1.60	0.6-6	0.08-0.18	0.0-2.9	1.0-5.0	.24
	21-31	24-75	15-50	1-17	1.40-1.70	0.2-2	0.07-0.14	0.0-2.9	0.0-0.2	.24
	31-37	20-75	15-70	1-17	1.40-1.70	0.2-2	0.07-0.14	0.0-2.9	0.0-0.2	.24
	37-72	24-80	15-50	1-17	1.40-1.70	0.2-2	0.07-0.14	0.0-2.9	0.0-0.2	.24
651D:										
Monadnock, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	40-85	20-50	2-17	0.80-1.20	0.6-2	0.12-0.22	0.0-2.9	2.0-8.0	.20
	2-7	40-85	20-50	1-17	0.80-1.20	0.6-2	0.10-0.20	0.0-2.9	1.0-4.0	.20
	7-14	40-85	20-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	1.0-8.0	.28
	14-27	40-91	10-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	0.2-2.0	.28
	27-41	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
	41-72	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
Tunbridge, hilly, very bouldery------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
651F:										
Monadnock, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	40-85	20-50	2-17	0.80-1.20	0.6-2	0.12-0.22	0.0-2.9	2.0-8.0	.20
	2-7	40-85	20-50	1-17	0.80-1.20	0.6-2	0.10-0.20	0.0-2.9	1.0-4.0	.20
	7-14	40-85	20-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	1.0-8.0	.28
	14-27	40-91	10-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	0.2-2.0	.28
	27-41	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
	41-72	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
653C:										
Monadnock, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	40-85	20-50	2-17	0.80-1.20	0.6-2	0.12-0.22	0.0-2.9	2.0-8.0	.20
	2-7	40-85	20-50	1-17	0.80-1.20	0.6-2	0.10-0.20	0.0-2.9	1.0-4.0	.20
	7-14	40-85	20-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	1.0-8.0	.28
	14-27	40-91	10-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	0.2-2.0	.28
	27-41	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
	41-72	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
653D:										
Monadnock, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	40-85	20-50	2-17	0.80-1.20	0.6-2	0.12-0.22	0.0-2.9	2.0-8.0	.20
	2-7	40-85	20-50	1-17	0.80-1.20	0.6-2	0.10-0.20	0.0-2.9	1.0-4.0	.20
	7-14	40-85	20-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	1.0-8.0	.28
	14-27	40-91	10-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	0.2-2.0	.28
	27-41	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
	41-72	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
708B:										
Adirondack, very bouldery-----------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-4	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	4-6	44-85	0-49	0-17	0.60-1.30	0.6-2	0.15-0.21	0.0-2.9	1.0-4.0	.20

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosio[n] Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	6-8	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.28
	8-9	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.28
	9-18	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	1.0-8.0	.28
	18-26	33-85	0-50	0-17	1.30-1.60	0.6-2	0.14-0.20	0.0-2.9	0.0-2.0	.28
	26-34	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
	34-43	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
	43-72	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
Sabattis, very bouldery----------	0-8	---	---	0-17	0.10-0.40	0.6-6	0.20-0.65	---	35-100	---
	8-11	15-75	15-70	2-17	0.80-1.10	0.6-6	0.14-0.25	0.0-2.9	4.0-30	.20
	11-21	15-75	15-70	2-17	1.30-1.60	0.6-6	0.08-0.18	0.0-2.9	1.0-5.0	.24
	21-31	24-75	15-50	1-17	1.40-1.70	0.2-2	0.07-0.14	0.0-2.9	0.0-0.2	.24
	31-37	20-75	15-70	1-17	1.40-1.70	0.2-2	0.07-0.14	0.0-2.9	0.0-0.2	.24
	37-72	24-80	15-50	1-17	1.40-1.70	0.2-2	0.07-0.14	0.0-2.9	0.0-0.2	.24
Tughill, very bouldery----------	0-2	---	---	0-18	0.10-0.40	0.6-6	0.20-0.60	0.0-2.9	50-100	---
	2-8	15-85	15-70	3-18	1.00-1.35	0.6-6	0.18-0.25	0.0-2.9	10-20	.15
	8-22	15-85	15-70	3-18	1.20-1.50	0.6-2	0.06-0.10	0.0-2.9	1.0-5.0	.20
	22-38	15-85	10-70	1-18	1.70-1.95	0.06-2	0.05-0.10	0.0-2.9	0.0-0.5	.20
	38-51	15-85	10-70	1-18	1.70-1.95	0.06-2	0.05-0.10	0.0-2.9	0.0-0.2	.20
711C:										
Adirondack, very bouldery----------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-4	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	4-6	44-85	0-49	0-17	0.60-1.30	0.6-2	0.15-0.21	0.0-2.9	1.0-4.0	.20
	6-8	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.28
	8-9	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.28
	9-18	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	1.0-8.0	.28
	18-26	33-85	0-50	0-17	1.30-1.60	0.6-2	0.14-0.20	0.0-2.9	0.0-2.0	.28
	26-34	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
	34-43	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
	43-72	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
Tunbridge, very bouldery----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
Burnt Vly-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	65-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	65-100	---
	3-11	---	---	0-17	0.10-0.40	0.2-6	0.35-0.65	0.0-2.9	65-100	---
	11-26	---	---	0-17	0.10-0.40	0.2-6	0.35-0.65	0.0-2.9	65-100	---
	26-30	---	---	0-17	0.10-0.40	0.2-6	0.35-0.65	0.0-2.9	65-100	---
	30-60	70-100	0-29	0-10	1.55-1.75	6-20	0.03-0.10	0.0-2.9	0.0-0.5	.10
721C:										
Becket, very bouldery-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-5	44-85	0-49	0-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	0.5-4.0	.17
	5-8	44-85	0-49	0-17	1.30-1.50	0.6-2	0.10-0.35	0.0-2.9	4.0-10	.28
	8-15	44-85	0-49	0-17	1.30-1.50	0.6-2	0.06-0.20	0.0-2.9	1.0-8.0	.28
	15-26	44-91	0-49	0-17	1.50-1.75	0.6-2	0.05-0.16	0.0-2.9	0.1-2.0	.17
	26-38	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	38-72	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
Skerry, very bouldery-----------	0-3	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	3-5	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	5-7	44-75	15-49	1-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	1.0-4.0	.24
	7-11	44-75	15-49	1-17	1.30-1.50	0.6-2	0.06-0.23	0.0-2.9	1.0-8.0	.24
	11-17	44-75	15-49	1-17	1.30-1.50	0.6-2	0.06-0.23	0.0-2.9	1.0-8.0	.24
	17-29	44-91	15-49	1-17	1.40-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.24
	29-72	44-91	5-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
721D:										
Becket, very bouldery-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-5	44-85	0-49	0-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	0.5-4.0	.17
	5-8	44-85	0-49	0-17	1.30-1.50	0.6-2	0.10-0.35	0.0-2.9	4.0-10	.28
	8-15	44-85	0-49	0-17	1.30-1.50	0.6-2	0.06-0.20	0.0-2.9	1.0-8.0	.28
	15-26	44-91	0-49	0-17	1.50-1.75	0.6-2	0.05-0.16	0.0-2.9	0.1-2.0	.17
	26-38	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	38-72	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
721F:										
Becket, very bouldery-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-5	44-85	0-49	0-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	0.5-4.0	.17
	5-8	44-85	0-49	0-17	1.30-1.50	0.6-2	0.10-0.35	0.0-2.9	4.0-10	.28
	8-15	44-85	0-49	0-17	1.30-1.50	0.6-2	0.06-0.20	0.0-2.9	1.0-8.0	.28
	15-26	44-91	0-49	0-17	1.50-1.75	0.6-2	0.05-0.16	0.0-2.9	0.1-2.0	.17
	26-38	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	38-72	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
723C:										
Becket, very bouldery-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-5	44-85	0-49	0-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	0.5-4.0	.17
	5-8	44-85	0-49	0-17	1.30-1.50	0.6-2	0.10-0.35	0.0-2.9	4.0-10	.28
	8-15	44-85	0-49	0-17	1.30-1.50	0.6-2	0.06-0.20	0.0-2.9	1.0-8.0	.28
	15-26	44-91	0-49	0-17	1.50-1.75	0.6-2	0.05-0.16	0.0-2.9	0.1-2.0	.17
	26-38	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	38-72	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
723D:										
Becket, very bouldery-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-5	44-85	0-49	0-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	0.5-4.0	.17
	5-8	44-85	0-49	0-17	1.30-1.50	0.6-2	0.10-0.35	0.0-2.9	4.0-10	.28
	8-15	44-85	0-49	0-17	1.30-1.50	0.6-2	0.06-0.20	0.0-2.9	1.0-8.0	.28

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	15-26	44-91	0-49	0-17	1.50-1.75	0.6-2	0.05-0.16	0.0-2.9	0.1-2.0	.17
	26-38	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	38-72	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
725B:										
Skerry, very bouldery-----------	0-3	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	3-5	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	5-7	44-75	15-49	1-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	1.0-4.0	.24
	7-11	44-75	15-49	1-17	1.30-1.50	0.6-2	0.06-0.23	0.0-2.9	1.0-8.0	.24
	11-17	44-75	15-49	1-17	1.30-1.50	0.6-2	0.06-0.23	0.0-2.9	1.0-8.0	.24
	17-29	44-91	15-49	1-17	1.40-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.24
	29-72	44-91	5-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
Becket, very bouldery-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-5	44-85	0-49	0-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	0.5-4.0	.17
	5-8	44-85	0-49	0-17	1.30-1.50	0.6-2	0.10-0.35	0.0-2.9	4.0-10	.28
	8-15	44-85	0-49	0-17	1.30-1.50	0.6-2	0.06-0.20	0.0-2.9	1.0-8.0	.28
	15-26	44-91	0-49	0-17	1.50-1.75	0.6-2	0.05-0.16	0.0-2.9	0.1-2.0	.17
	26-38	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	38-72	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
727B:										
Skerry, very bouldery-----------	0-3	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	3-5	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	5-7	44-75	15-49	1-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	1.0-4.0	.24
	7-11	44-75	15-49	1-17	1.30-1.50	0.6-2	0.06-0.23	0.0-2.9	1.0-8.0	.24
	11-17	44-75	15-49	1-17	1.30-1.50	0.6-2	0.06-0.23	0.0-2.9	1.0-8.0	.24
	17-29	44-91	15-49	1-17	1.40-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.24
	29-72	44-91	5-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
Adirondack, very bouldery-----------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-4	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	4-6	44-85	0-49	0-17	0.60-1.30	0.6-2	0.15-0.21	0.0-2.9	1.0-4.0	.20
	6-8	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.28
	8-9	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.28
	9-18	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	1.0-8.0	.28
	18-26	33-85	0-50	0-17	1.30-1.60	0.6-2	0.14-0.20	0.0-2.9	0.0-2.0	.28
	26-34	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
	34-43	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
	43-72	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
741C:										
Potsdam, very bouldery	0-2	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	2-8	32-52	28-50	7-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	1.0-6.0	.32
	8-10	15-85	0-80	0-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	1.0-4.0	.32
	10-13	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	4.0-10	.32
	13-19	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.32
	19-25	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	1.0-8.0	.32
	25-28	44-85	0-49	0-17	1.30-1.60	0.6-2	0.08-0.15	0.0-2.9	0.1-2.0	.28
	28-72	44-85	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.28
Tunbridge, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
741D:										
Potsdam, very bouldery	0-2	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	2-8	32-52	28-50	7-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	1.0-6.0	.32
	8-10	15-85	0-80	0-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	1.0-4.0	.32
	10-13	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	4.0-10	.32
	13-19	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.32
	19-25	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	1.0-8.0	.32
	25-28	44-85	0-49	0-17	1.30-1.60	0.6-2	0.08-0.15	0.0-2.9	0.1-2.0	.28
	28-72	44-85	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.28
Tunbridge, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
743C:										
Potsdam, very bouldery	0-2	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	2-8	32-52	28-50	7-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	1.0-6.0	.32
	8-10	15-85	0-80	0-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	1.0-4.0	.32
	10-13	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	4.0-10	.32
	13-19	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.32

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	19-25	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	1.0-8.0	.32
	25-28	44-85	0-49	0-17	1.30-1.60	0.6-2	0.08-0.15	0.0-2.9	0.1-2.0	.28
	28-72	44-85	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.28
743D:										
Potsdam, very bouldery-----------	0-2	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	2-8	32-52	28-50	7-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	1.0-6.0	.32
	8-10	15-85	0-80	0-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	1.0-4.0	.32
	10-13	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	4.0-10	.32
	13-19	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.32
	19-25	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	1.0-8.0	.32
	25-28	44-85	0-49	0-17	1.30-1.60	0.6-2	0.08-0.15	0.0-2.9	0.1-2.0	.28
	28-72	44-85	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.28
745C:										
Crary, very bouldery	0-4	32-52	28-50	7-17	1.10-1.40	0.6-2	0.13-0.24	0.0-2.9	2.0-8.0	.32
	4-8	15-85	0-80	0-17	1.20-1.50	0.6-2	0.13-0.30	0.0-2.9	4.0-10	.32
	8-16	15-85	0-80	0-17	1.20-1.50	0.6-2	0.11-0.20	0.0-2.9	1.0-8.0	.32
	16-21	15-85	0-80	0-17	1.20-1.50	0.6-2	0.11-0.20	0.0-2.9	0.5-4.0	.32
	21-25	32-85	0-50	0-17	1.20-1.80	0.6-2	0.06-0.16	0.0-2.9	0.1-2.0	.24
	25-72	32-85	0-50	0-17	1.65-1.95	0.06-0.2	0.02-0.09	0.0-2.9	0.0-0.2	.24
Potsdam, very bouldery-----------	0-2	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	2-8	32-52	28-50	7-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	1.0-6.0	.32
	8-10	15-85	0-80	0-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	1.0-4.0	.32
	10-13	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	4.0-10	.32
	13-19	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.32
	19-25	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	1.0-8.0	.32
	25-28	44-85	0-49	0-17	1.30-1.60	0.6-2	0.08-0.15	0.0-2.9	0.1-2.0	.28
	28-72	44-85	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.28
747B:										
Crary, very bouldery	0-4	32-52	28-50	7-17	1.10-1.40	0.6-2	0.13-0.24	0.0-2.9	2.0-8.0	.32
	4-8	15-85	0-80	0-17	1.20-1.50	0.6-2	0.13-0.30	0.0-2.9	4.0-10	.32
	8-16	15-85	0-80	0-17	1.20-1.50	0.6-2	0.11-0.20	0.0-2.9	1.0-8.0	.32
	16-21	15-85	0-80	0-17	1.20-1.50	0.6-2	0.11-0.20	0.0-2.9	0.5-4.0	.32
	21-25	32-85	0-50	0-17	1.20-1.80	0.6-2	0.06-0.16	0.0-2.9	0.1-2.0	.24
	25-72	32-85	0-50	0-17	1.65-1.95	0.06-0.2	0.02-0.09	0.0-2.9	0.0-0.2	.24
Adirondack, very bouldery-----------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-4	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	4-6	44-85	0-49	0-17	0.60-1.30	0.6-2	0.15-0.21	0.0-2.9	1.0-4.0	.20
	6-8	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.28
	8-9	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.28

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	9-18	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	1.0-8.0	.28
	18-26	33-85	0-50	0-17	1.30-1.60	0.6-2	0.14-0.20	0.0-2.9	0.0-2.0	.28
	26-34	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
	34-43	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
	43-72	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
831C:										
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
Lyman, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	2-3	25-85	10-70	1-17	0.75-1.20	0.6-2	0.13-0.24	0.0-2.9	1.0-4.0	.20
	3-4	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	2.0-8.0	.32
	4-8	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	1.0-8.0	.32
	8-14	30-80	10-60	0-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	0.5-6.0	.32
	14-24	---	---	---	---	0.0000-0.0015	---	---	---	---
831D:										
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
Lyman, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	2-3	25-85	10-70	1-17	0.75-1.20	0.6-2	0.13-0.24	0.0-2.9	1.0-4.0	.20
	3-4	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	2.0-8.0	.32
	4-8	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	1.0-8.0	.32
	8-14	30-80	10-60	0-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	0.5-6.0	.32
	14-24	---	---	---	---	0.0000-0.0015	---	---	---	---
831F:										
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
Lyman, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	2-3	25-85	10-70	1-17	0.75-1.20	0.6-2	0.13-0.24	0.0-2.9	1.0-4.0	.20
	3-4	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	2.0-8.0	.32
	4-8	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	1.0-8.0	.32
	8-14	30-80	10-60	0-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	0.5-6.0	.32
	14-24	---	---	---	---	0.0000-0.0015	---	---	---	---
833C:										
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
Adirondack, very bouldery-----------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-4	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	4-6	44-85	0-49	0-17	0.60-1.30	0.6-2	0.15-0.21	0.0-2.9	1.0-4.0	.20
	6-8	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.28
	8-9	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.28
	9-18	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	1.0-8.0	.28
	18-26	33-85	0-50	0-17	1.30-1.60	0.6-2	0.14-0.20	0.0-2.9	0.0-2.0	.28
	26-34	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
	34-43	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
	43-72	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
Lyman, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	2-3	25-85	10-70	1-17	0.75-1.20	0.6-2	0.13-0.24	0.0-2.9	1.0-4.0	.20
	3-4	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	2.0-8.0	.32
	4-8	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	1.0-8.0	.32
	8-14	30-80	10-60	0-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	0.5-6.0	.32
	14-24	---	---	---	---	0.0000-0.0015	---	---	---	---
836C:										
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
Wonsqueak-----------	0-9	---	---	0-17	0.10-0.30	0.2-6	0.20-0.50	0.0-2.9	70-100	---
	9-24	---	---	0-17	0.10-0.30	0.2-6	0.20-0.65	0.0-2.9	70-100	---
	24-44	---	---	0-17	0.10-0.30	0.2-6	0.20-0.65	0.0-2.9	70-100	---
	44-72	0-85	0-80	0-34	1.50-1.70	0.2-2	0.06-0.16	0.0-2.9	0.0-2.0	.32
Knob Lock, very bouldery-----------	0-1	25-95	0-80	0-17	0.10-0.30	2-6	0.20-0.45	0.0-2.9	50-100	---
	1-3	25-95	0-80	0-17	0.10-0.35	2-6	0.25-0.50	0.0-2.9	50-100	---
	3-8	25-95	0-80	0-17	0.10-0.60	2-6	0.35-0.65	0.0-2.9	50-100	---
	8-18	---	---	---	---	0.0000-0.0015	---	---	---	---
851C:										
Lyman, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	2-3	25-85	10-70	1-17	0.75-1.20	0.6-2	0.13-0.24	0.0-2.9	1.0-4.0	.20
	3-4	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	2.0-8.0	.32
	4-8	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	1.0-8.0	.32
	8-14	30-80	10-60	0-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	0.5-6.0	.32
	14-24	---	---	---	---	0.0000-0.0015	---	---	---	---
Knob Lock, very bouldery-----------	0-1	25-95	0-80	0-17	0.10-0.30	2-6	0.20-0.45	0.0-2.9	50-100	---
	1-3	25-95	0-80	0-17	0.10-0.35	2-6	0.25-0.50	0.0-2.9	50-100	---
	3-8	25-95	0-80	0-17	0.10-0.60	2-6	0.35-0.65	0.0-2.9	50-100	---
	8-18	---	---	---	---	0.0000-0.0015	---	---	---	---
851D:										
Lyman, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	2-3	25-85	10-70	1-17	0.75-1.20	0.6-2	0.13-0.24	0.0-2.9	1.0-4.0	.20
	3-4	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	2.0-8.0	.32
	4-8	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	1.0-8.0	.32
	8-14	30-80	10-60	0-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	0.5-6.0	.32
	14-24	---	---	---	---	0.0000-0.0015	---	---	---	---
Knob Lock, very bouldery-----------	0-1	25-95	0-80	0-17	0.10-0.30	2-6	0.20-0.45	0.0-2.9	50-100	---
	1-3	25-95	0-80	0-17	0.10-0.35	2-6	0.25-0.50	0.0-2.9	50-100	---
	3-8	25-95	0-80	0-17	0.10-0.60	2-6	0.35-0.65	0.0-2.9	50-100	---
	8-18	---	---	---	---	0.0000-0.0015	---	---	---	---

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
851F:										
Lyman, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	2-3	25-85	10-70	1-17	0.75-1.20	0.6-2	0.13-0.24	0.0-2.9	1.0-4.0	.20
	3-4	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	2.0-8.0	.32
	4-8	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	1.0-8.0	.32
	8-14	30-80	10-60	0-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	0.5-6.0	.32
	14-24	---	---	---	---	0.0000-0.0015	---	---	---	---
Knob Lock, very bouldery-----------	0-1	25-95	0-80	0-17	0.10-0.30	2-6	0.20-0.45	0.0-2.9	50-100	---
	1-3	25-95	0-80	0-17	0.10-0.35	2-6	0.25-0.50	0.0-2.9	50-100	---
	3-8	25-95	0-80	0-17	0.10-0.60	2-6	0.35-0.65	0.0-2.9	50-100	---
	8-18	---	---	---	---	0.0000-0.0015	---	---	---	---
931D:										
Mundalite, very bouldery-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.60	---	35-100	---
	1-3	40-75	10-49	1-17	0.70-1.20	0.6-2	0.10-0.24	0.0-2.9	1.0-14	.20
	3-5	40-75	10-49	1-17	0.80-1.30	0.6-2	0.13-0.45	0.0-2.9	10-34	.28
	5-14	40-75	10-49	1-17	1.30-1.60	0.6-2	0.06-0.20	0.0-2.9	1.0-10	.20
	14-27	40-85	10-49	1-17	1.30-1.60	0.6-2	0.06-0.16	0.0-2.9	1.0-10	.20
	27-37	44-91	0-49	0-17	1.65-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.10
	37-72	44-91	0-49	0-17	1.65-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.10
Rawsonville, very bouldery-----------	0-4	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	4-7	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	7-9	30-85	10-65	1-17	0.70-1.00	0.6-6	0.13-0.22	0.0-2.9	2.0-14	.24
	9-10	30-85	10-70	1-17	0.70-1.00	0.6-6	0.13-0.45	0.0-2.9	10-34	.28
	10-15	30-85	10-70	1-17	0.70-1.00	0.6-6	0.13-0.45	0.0-2.9	10-34	.28
	15-26	30-85	10-70	1-17	0.70-1.00	0.6-6	0.13-0.45	0.0-2.9	10-34	.24
	26-27	44-85	5-49	0-10	1.10-1.70	0.2-6	0.07-0.17	0.0-2.9	0.5-34	.24
	27-37	---	---	---	---	0.0000-0.0015	---	---	---	---
931F:										
Mundalite, very bouldery-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.60	---	35-100	---
	1-3	40-75	10-49	1-17	0.70-1.20	0.6-2	0.10-0.24	0.0-2.9	1.0-14	.20
	3-5	40-75	10-49	1-17	0.80-1.30	0.6-2	0.13-0.45	0.0-2.9	10-34	.28
	5-14	40-75	10-49	1-17	1.30-1.60	0.6-2	0.06-0.20	0.0-2.9	1.0-10	.20
	14-27	40-85	10-49	1-17	1.30-1.60	0.6-2	0.06-0.16	0.0-2.9	1.0-10	.20
	27-37	44-91	0-49	0-17	1.65-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.10
	37-72	44-91	0-49	0-17	1.65-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.10

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
Rawsonville, very bouldery-----------	0-4	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	4-7	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	7-9	30-85	10-65	1-17	0.70-1.00	0.6-6	0.13-0.22	0.0-2.9	2.0-14	.24
	9-10	30-85	10-70	1-17	0.70-1.00	0.6-6	0.13-0.45	0.0-2.9	10-34	.28
	10-15	30-85	10-70	1-17	0.70-1.00	0.6-6	0.13-0.45	0.0-2.9	10-34	.28
	15-26	30-85	10-70	1-17	0.70-1.00	0.6-6	0.13-0.45	0.0-2.9	10-34	.24
	26-27	44-85	5-49	0-10	1.10-1.70	0.2-6	0.07-0.17	0.0-2.9	0.5-34	.24
	27-37	---	---	---	---	0.0000-0.0015	---	---	---	---
941C:										
Rawsonville, very bouldery-----------	0-4	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	4-7	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	7-9	30-85	10-65	1-17	0.70-1.00	0.6-6	0.13-0.22	0.0-2.9	2.0-14	.24
	9-10	30-85	10-70	1-17	0.70-1.00	0.6-6	0.13-0.45	0.0-2.9	10-34	.28
	10-15	30-85	10-70	1-17	0.70-1.00	0.6-6	0.13-0.45	0.0-2.9	10-34	.28
	15-26	30-85	10-70	1-17	0.70-1.00	0.6-6	0.13-0.45	0.0-2.9	10-34	.24
	26-27	44-85	5-49	0-10	1.10-1.70	0.2-6	0.07-0.17	0.0-2.9	0.5-34	.24
	27-37	---	---	---	---	0.0000-0.0015	---	---	---	---
Hogback, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	2-3	24-90	5-50	1-17	0.60-1.00	2-6	0.13-0.45	0.0-2.9	2.0-14	.24
	3-4	24-85	5-50	1-17	0.60-1.00	2-6	0.13-0.45	0.0-2.9	10-34	.24
	4-18	24-85	5-50	0-17	0.60-1.00	2-6	0.13-0.45	0.0-2.9	10-34	.24
	18-28	---	---	---	---	0.0000-0.0015	---	---	---	---
941D:										
Rawsonville, very bouldery-----------	0-4	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	4-7	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	7-9	30-85	10-65	1-17	0.70-1.00	0.6-6	0.13-0.22	0.0-2.9	2.0-14	.24
	9-10	30-85	10-70	1-17	0.70-1.00	0.6-6	0.13-0.45	0.0-2.9	10-34	.28
	10-15	30-85	10-70	1-17	0.70-1.00	0.6-6	0.13-0.45	0.0-2.9	10-34	.28
	15-26	30-85	10-70	1-17	0.70-1.00	0.6-6	0.13-0.45	0.0-2.9	10-34	.24
	26-27	44-85	5-49	0-10	1.10-1.70	0.2-6	0.07-0.17	0.0-2.9	0.5-34	.24
	27-37	---	---	---	---	0.0000-0.0015	---	---	---	---
Hogback, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	2-3	24-90	5-50	1-17	0.60-1.00	2-6	0.13-0.45	0.0-2.9	2.0-14	.24
	3-4	24-85	5-50	1-17	0.60-1.00	2-6	0.13-0.45	0.0-2.9	10-34	.24
	4-18	24-85	5-50	0-17	0.60-1.00	2-6	0.13-0.45	0.0-2.9	10-34	.24
	18-28	---	---	---	---	0.0000-0.0015	---	---	---	---

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion
										Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
941F:										
Rawsonville, very bouldery----------	0-4	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	4-7	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	7-9	30-85	10-65	1-17	0.70-1.00	0.6-6	0.13-0.22	0.0-2.9	2.0-14	.24
	9-10	30-85	10-70	1-17	0.70-1.00	0.6-6	0.13-0.45	0.0-2.9	10-34	.28
	10-15	30-85	10-70	1-17	0.70-1.00	0.6-6	0.13-0.45	0.0-2.9	10-34	.28
	15-26	30-85	10-70	1-17	0.70-1.00	0.6-6	0.13-0.45	0.0-2.9	10-34	.24
	26-27	44-85	5-49	0-10	1.10-1.70	0.2-6	0.07-0.17	0.0-2.9	0.5-34	.24
	27-37	---	---	---	---	0.0000-0.0015	---	---	---	---
Hogback, very bouldery----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	2-3	24-90	5-50	1-17	0.60-1.00	2-6	0.13-0.45	0.0-2.9	2.0-14	.24
	3-4	24-85	5-50	1-17	0.60-1.00	2-6	0.13-0.45	0.0-2.9	10-34	.24
	4-18	24-85	5-50	0-17	0.60-1.00	2-6	0.13-0.45	0.0-2.9	10-34	.24
	18-28	---	---	---	---	0.0000-0.0015	---	---	---	---
1018B:										
Colton--------------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-0.0	75-100	---
	1-3	44-91	0-29	0-15	1.10-1.40	6-100	0.03-0.07	0.0-2.9	2.0-6.0	.10
	3-4	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-4.0	.24
	4-5	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	5-13	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	13-21	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-1.0	.15
	21-32	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-0.5	.15
	32-80	70-100	0-29	0-6	1.45-1.65	20-100	0.01-0.02	0.0-2.9	---	.10
1018C:										
Colton--------------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-0.0	75-100	---
	1-3	44-91	0-29	0-15	1.10-1.40	6-100	0.03-0.07	0.0-2.9	2.0-6.0	.10
	3-4	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-4.0	.24
	4-5	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	5-13	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	13-21	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-1.0	.15
	21-32	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-0.5	.15
	32-80	70-100	0-29	0-6	1.45-1.65	20-100	0.01-0.02	0.0-2.9	---	.10
1018D:										
Colton--------------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-0.0	75-100	---
	1-3	44-91	0-29	0-15	1.10-1.40	6-100	0.03-0.07	0.0-2.9	2.0-6.0	.10
	3-4	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-4.0	.24
	4-5	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	5-13	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	13-21	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-1.0	.15

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	21-32	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-0.5	.15
	32-80	70-100	0-29	0-6	1.45-1.65	20-100	0.01-0.02	0.0-2.9	---	.10
1022A:										
Croghan-------------	0-2	---	0-49	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-0.0	50-100	---
	2-3	60-100	0-35	0-5	1.10-1.50	2-20	0.05-0.25	0.0-2.9	2.0-9.0	.15
	3-5	60-100	0-30	0-5	1.20-1.50	6-100	0.03-0.30	0.0-2.9	4.0-10	.17
	5-11	70-100	0-30	0-5	1.20-1.50	6-100	0.03-0.20	0.0-2.9	1.0-8.0	.17
	11-30	70-100	0-29	0-5	1.20-1.50	6-100	0.03-0.10	0.0-2.9	1.0-8.0	.17
	30-36	70-100	0-29	0-5	1.20-1.50	6-100	0.03-0.06	0.0-2.9	0.0-0.2	.17
	36-60	70-100	0-29	0-5	1.20-1.50	20-100	0.03-0.06	0.0-2.9	0.0-0.2	.17
1023A:										
Naumburg------------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-0.0	50-100	---
	1-5	44-91	5-40	1-5	1.20-1.50	6-20	0.08-0.18	0.0-2.9	3.0-10	.20
	5-8	44-91	5-40	1-5	1.20-1.50	6-20	0.05-0.12	0.0-2.9	1.0-4.0	.20
	8-10	70-95	5-29	1-5	1.20-1.50	6-20	0.06-0.16	0.0-2.9	4.0-10	.17
	10-16	70-100	5-29	1-5	1.20-1.50	6-20	0.06-0.12	0.0-2.9	1.0-8.0	.17
	16-19	70-100	0-29	1-5	1.20-1.50	6-20	0.04-0.08	0.0-2.9	0.0-2.0	.17
	19-72	70-100	0-29	0-5	1.45-1.65	6-100	0.04-0.06	0.0-2.9	0.0-0.2	.17
1024A:										
Searsport-----------	0-1	---	---	0-17	0.55-0.75	0.2-6	0.20-0.60	---	100-100	---
	1-9	---	---	0-17	0.55-0.75	0.2-6	0.20-0.60	---	35-100	---
	9-17	70-100	0-29	0-2	1.00-1.55	6-100	0.01-0.09	0.0-2.9	0.0-2.0	.15
	17-55	70-100	0-29	0-2	1.35-1.55	6-100	0.01-0.09	0.0-2.9	0.0-0.2	.15
	55-72	70-100	0-29	0-2	1.35-1.55	6-100	0.01-0.09	0.0-2.9	0.0-0.2	.15
1025A:										
Adams---------------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-3	70-91	0-29	0-15	1.00-1.30	6-20	0.03-0.20	0.0-2.9	0.1-4.0	.15
	3-5	70-100	0-29	0-15	1.00-1.30	6-20	0.10-0.35	0.0-2.9	4.0-10	.17
	5-9	70-100	0-29	0-15	1.00-1.30	6-20	0.04-0.30	0.0-2.9	4.0-10	.17
	9-14	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	14-17	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	17-32	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-2.0	.17
	32-58	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
	58-72	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
1025B:										
Adams---------------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-3	70-91	0-29	0-15	1.00-1.30	6-20	0.03-0.20	0.0-2.9	0.1-4.0	.15
	3-5	70-100	0-29	0-15	1.00-1.30	6-20	0.10-0.35	0.0-2.9	4.0-10	.17
	5-9	70-100	0-29	0-15	1.00-1.30	6-20	0.04-0.30	0.0-2.9	4.0-10	.17
	9-14	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	14-17	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	17-32	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-2.0	.17

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	32-58	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
	58-72	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
1025C:										
Adams---------------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-3	70-91	0-29	0-15	1.00-1.30	6-20	0.03-0.20	0.0-2.9	0.1-4.0	.15
	3-5	70-100	0-29	0-15	1.00-1.30	6-20	0.10-0.35	0.0-2.9	4.0-10	.17
	5-9	70-100	0-29	0-15	1.00-1.30	6-20	0.04-0.30	0.0-2.9	4.0-10	.17
	9-14	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	14-17	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	17-32	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-2.0	.17
	32-58	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
	58-72	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
1025E:										
Adams---------------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-3	70-91	0-29	0-15	1.00-1.30	6-20	0.03-0.20	0.0-2.9	0.1-4.0	.15
	3-5	70-100	0-29	0-15	1.00-1.30	6-20	0.10-0.35	0.0-2.9	4.0-10	.17
	5-9	70-100	0-29	0-15	1.00-1.30	6-20	0.04-0.30	0.0-2.9	4.0-10	.17
	9-14	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	14-17	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	17-32	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-2.0	.17
	32-58	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
	58-72	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
1025F:										
Adams---------------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-3	70-91	0-29	0-15	1.00-1.30	6-20	0.03-0.20	0.0-2.9	0.1-4.0	.15
	3-5	70-100	0-29	0-15	1.00-1.30	6-20	0.10-0.35	0.0-2.9	4.0-10	.17
	5-9	70-100	0-29	0-15	1.00-1.30	6-20	0.04-0.30	0.0-2.9	4.0-10	.17
	9-14	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	14-17	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	17-32	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-2.0	.17
	32-58	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
	58-72	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
1027B:										
Allagash------------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	44-84	1-49	1-17	0.95-1.25	0.6-2	0.10-0.22	0.0-2.9	0.5-4.0	.24
	3-5	1-84	1-87	1-17	1.20-1.50	0.6-2	0.15-0.50	0.0-2.9	4.0-10	.28
	5-19	1-84	1-87	1-17	1.20-1.50	0.6-2	0.10-0.24	0.0-2.9	1.0-8.0	.28
	19-35	1-84	1-87	1-17	1.20-1.50	0.6-2	0.10-0.24	0.0-2.9	0.1-2.0	.28
	35-44	71-100	0-29	1-14	1.35-1.65	6-20	0.06-0.18	0.0-2.9	0.0-0.2	.20
	44-72	71-100	0-29	1-14	1.35-1.65	6-100	0.06-0.18	0.0-2.9	0.0-0.2	.15

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
1027C:										
Allagash------------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	44-84	1-49	1-17	0.95-1.25	0.6-2	0.10-0.22	0.0-2.9	0.5-4.0	.24
	3-5	1-84	1-87	1-17	1.20-1.50	0.6-2	0.15-0.50	0.0-2.9	4.0-10	.28
	5-19	1-84	1-87	1-17	1.20-1.50	0.6-2	0.10-0.24	0.0-2.9	1.0-8.0	.28
	19-35	1-84	1-87	1-17	1.20-1.50	0.6-2	0.10-0.24	0.0-2.9	0.1-2.0	.28
	35-44	71-100	0-29	1-14	1.35-1.65	6-20	0.06-0.18	0.0-2.9	0.0-0.2	.20
	44-72	71-100	0-29	1-14	1.35-1.65	6-100	0.06-0.18	0.0-2.9	0.0-0.2	.15
1027E:										
Allagash------------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	44-84	1-49	1-17	0.95-1.25	0.6-2	0.10-0.22	0.0-2.9	0.5-4.0	.24
	3-5	1-84	1-87	1-17	1.20-1.50	0.6-2	0.15-0.50	0.0-2.9	4.0-10	.28
	5-19	1-84	1-87	1-17	1.20-1.50	0.6-2	0.10-0.24	0.0-2.9	1.0-8.0	.28
	19-35	1-84	1-87	1-17	1.20-1.50	0.6-2	0.10-0.24	0.0-2.9	0.1-2.0	.28
	35-44	71-100	0-29	1-14	1.35-1.65	6-20	0.06-0.18	0.0-2.9	0.0-0.2	.20
	44-72	71-100	0-29	1-14	1.35-1.65	6-100	0.06-0.18	0.0-2.9	0.0-0.2	.15
1070B:										
Berkshire, very bouldery-----------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.60	0.0-2.9	50-100	---
	2-5	24-51	29-49	1-17	1.10-1.15	0.6-6	0.06-0.22	0.0-2.9	2.0-6.0	.24
	5-6	24-84	1-49	1-17	1.15-1.30	0.6-6	0.10-0.20	0.0-2.9	0.5-4.0	.24
	6-9	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	4.0-10	.24
	9-21	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	1.0-8.0	.24
	21-30	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.20	0.0-2.9	0.1-2.0	.24
	30-32	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	0.0-2.0	.24
	32-74	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	0.0-0.2	.24
1070C:										
Berkshire, very bouldery-----------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.60	0.0-2.9	50-100	---
	2-5	24-51	29-49	1-17	1.10-1.15	0.6-6	0.06-0.22	0.0-2.9	2.0-6.0	.24
	5-6	24-84	1-49	1-17	1.15-1.30	0.6-6	0.10-0.20	0.0-2.9	0.5-4.0	.24
	6-9	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	4.0-10	.24
	9-21	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	1.0-8.0	.24
	21-30	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.20	0.0-2.9	0.1-2.0	.24
	30-32	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	0.0-2.0	.24
	32-74	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	0.0-0.2	.24
1070E:										
Berkshire, very bouldery-----------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.60	0.0-2.9	50-100	---
	2-5	24-51	29-49	1-17	1.10-1.15	0.6-6	0.06-0.22	0.0-2.9	2.0-6.0	.24
	5-6	24-84	1-49	1-17	1.15-1.30	0.6-6	0.10-0.20	0.0-2.9	0.5-4.0	.24
	6-9	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	4.0-10	.24

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	9-21	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	1.0-8.0	.24
	21-30	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.20	0.0-2.9	0.1-2.0	.24
	30-32	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	0.0-2.0	.24
	32-74	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	0.0-0.2	.24
1075B: Potsdam, very bouldery-----------	0-2	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	2-8	32-52	28-50	7-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	1.0-6.0	.32
	8-10	15-85	0-80	0-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	1.0-4.0	.32
	10-13	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	4.0-10	.32
	13-19	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.32
	19-25	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	1.0-8.0	.32
	25-28	44-85	0-49	0-17	1.30-1.60	0.6-2	0.08-0.15	0.0-2.9	0.1-2.0	.28
	28-72	44-85	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.28
1075C: Potsdam, very bouldery-----------	0-2	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	2-8	32-52	28-50	7-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	1.0-6.0	.32
	8-10	15-85	0-80	0-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	1.0-4.0	.32
	10-13	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	4.0-10	.32
	13-19	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.32
	19-25	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	1.0-8.0	.32
	25-28	44-85	0-49	0-17	1.30-1.60	0.6-2	0.08-0.15	0.0-2.9	0.1-2.0	.28
	28-72	44-85	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.28
1078B: Crary, very bouldery	0-4	32-52	28-50	7-17	1.10-1.40	0.6-2	0.13-0.24	0.0-2.9	2.0-8.0	.32
	4-8	15-85	0-80	0-17	1.20-1.50	0.6-2	0.13-0.30	0.0-2.9	4.0-10	.32
	8-16	15-85	0-80	0-17	1.20-1.50	0.6-2	0.11-0.20	0.0-2.9	1.0-8.0	.32
	16-21	15-85	0-80	0-17	1.20-1.50	0.6-2	0.11-0.20	0.0-2.9	0.5-4.0	.32
	21-25	32-85	0-50	0-17	1.20-1.80	0.6-2	0.06-0.16	0.0-2.9	0.1-2.0	.24
	25-72	32-85	0-50	0-17	1.65-1.95	0.06-0.2	0.02-0.09	0.0-2.9	0.0-0.2	.24
1080B: Becket, very bouldery-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-5	44-85	0-49	0-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	0.5-4.0	.17
	5-8	44-85	0-49	0-17	1.30-1.50	0.6-2	0.10-0.35	0.0-2.9	4.0-10	.28
	8-15	44-85	0-49	0-17	1.30-1.50	0.6-2	0.06-0.20	0.0-2.9	1.0-8.0	.28
	15-26	44-91	0-49	0-17	1.50-1.75	0.6-2	0.05-0.16	0.0-2.9	0.1-2.0	.17
	26-38	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	38-72	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
1080C:										
Becket, very bouldery	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-5	44-85	0-49	0-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	0.5-4.0	.17
	5-8	44-85	0-49	0-17	1.30-1.50	0.6-2	0.10-0.35	0.0-2.9	4.0-10	.28
	8-15	44-85	0-49	0-17	1.30-1.50	0.6-2	0.06-0.20	0.0-2.9	1.0-8.0	.28
	15-26	44-91	0-49	0-17	1.50-1.75	0.6-2	0.05-0.16	0.0-2.9	0.1-2.0	.17
	26-38	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	38-72	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
1080E:										
Becket, very bouldery	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-5	44-85	0-49	0-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	0.5-4.0	.17
	5-8	44-85	0-49	0-17	1.30-1.50	0.6-2	0.10-0.35	0.0-2.9	4.0-10	.28
	8-15	44-85	0-49	0-17	1.30-1.50	0.6-2	0.06-0.20	0.0-2.9	1.0-8.0	.28
	15-26	44-91	0-49	0-17	1.50-1.75	0.6-2	0.05-0.16	0.0-2.9	0.1-2.0	.17
	26-38	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	38-72	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
1081B:										
Skerry, very bouldery	0-3	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	3-5	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	5-7	44-75	15-49	1-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	1.0-4.0	.24
	7-11	44-75	15-49	1-17	1.30-1.50	0.6-2	0.06-0.23	0.0-2.9	1.0-8.0	.24
	11-17	44-75	15-49	1-17	1.30-1.50	0.6-2	0.06-0.23	0.0-2.9	1.0-8.0	.24
	17-29	44-91	15-49	1-17	1.40-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.24
	29-72	44-91	5-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
1081C:										
Skerry, very bouldery	0-3	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	3-5	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	5-7	44-75	15-49	1-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	1.0-4.0	.24
	7-11	44-75	15-49	1-17	1.30-1.50	0.6-2	0.06-0.23	0.0-2.9	1.0-8.0	.24
	11-17	44-75	15-49	1-17	1.30-1.50	0.6-2	0.06-0.23	0.0-2.9	1.0-8.0	.24
	17-29	44-91	15-49	1-17	1.40-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.24
	29-72	44-91	5-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
1091C:										
Lyman, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	2-3	25-85	10-70	1-17	0.75-1.20	0.6-2	0.13-0.24	0.0-2.9	1.0-4.0	.20
	3-4	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	2.0-8.0	.32

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	4-8	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	1.0-8.0	.32
	8-14	30-80	10-60	0-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	0.5-6.0	.32
	14-24	---	---	---	---	0.0000-0.0015	---	---	---	---
Becket, very bouldery-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-5	44-85	0-49	0-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	0.5-4.0	.17
	5-8	44-85	0-49	0-17	1.30-1.50	0.6-2	0.10-0.35	0.0-2.9	4.0-10	.28
	8-15	44-85	0-49	0-17	1.30-1.50	0.6-2	0.06-0.20	0.0-2.9	1.0-8.0	.28
	15-26	44-91	0-49	0-17	1.50-1.75	0.6-2	0.05-0.16	0.0-2.9	0.1-2.0	.17
	26-38	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	38-72	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
1091E:										
Lyman, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	2-3	25-85	10-70	1-17	0.75-1.20	0.6-2	0.13-0.24	0.0-2.9	1.0-4.0	.20
	3-4	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	2.0-8.0	.32
	4-8	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	1.0-8.0	.32
	8-14	30-80	10-60	0-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	0.5-6.0	.32
	14-24	---	---	---	---	0.0000-0.0015	---	---	---	---
Becket, very bouldery-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-5	44-85	0-49	0-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	0.5-4.0	.17
	5-8	44-85	0-49	0-17	1.30-1.50	0.6-2	0.10-0.35	0.0-2.9	4.0-10	.28
	8-15	44-85	0-49	0-17	1.30-1.50	0.6-2	0.06-0.20	0.0-2.9	1.0-8.0	.28
	15-26	44-91	0-49	0-17	1.50-1.75	0.6-2	0.05-0.16	0.0-2.9	0.1-2.0	.17
	26-38	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	38-72	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
1118C:										
Adams	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-3	70-91	0-29	0-15	1.00-1.30	6-20	0.03-0.20	0.0-2.9	0.1-4.0	.15
	3-5	70-100	0-29	0-15	1.00-1.30	6-20	0.10-0.35	0.0-2.9	4.0-10	.17
	5-9	70-100	0-29	0-15	1.00-1.30	6-20	0.04-0.30	0.0-2.9	4.0-10	.17
	9-14	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	14-17	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	17-32	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-2.0	.17
	32-58	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
	58-72	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
Colton	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-0.0	75-100	---
	1-3	44-91	0-29	0-15	1.10-1.40	6-100	0.03-0.07	0.0-2.9	2.0-6.0	.10
	3-4	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-4.0	.24
	4-5	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	5-13	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	13-21	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-1.0	.15
	21-32	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-0.5	.15
	32-80	70-100	0-29	0-6	1.45-1.65	20-100	0.01-0.02	0.0-2.9	---	.10
1118D:										
Adams	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-3	70-91	0-29	0-15	1.00-1.30	6-20	0.03-0.20	0.0-2.9	0.1-4.0	.15
	3-5	70-100	0-29	0-15	1.00-1.30	6-20	0.10-0.35	0.0-2.9	4.0-10	.17
	5-9	70-100	0-29	0-15	1.00-1.30	6-20	0.04-0.30	0.0-2.9	4.0-10	.17
	9-14	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	14-17	70-100	0-29	0-15	1.10-1.45	6-20	0.03-0.20	0.0-2.9	1.0-8.0	.17
	17-32	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-2.0	.17
	32-58	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
	58-72	86-100	0-14	0-10	1.20-1.50	20-100	0.03-0.10	0.0-2.9	0.0-0.2	.05
Colton	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-0.0	75-100	---
	1-3	44-91	0-29	0-15	1.10-1.40	6-100	0.03-0.07	0.0-2.9	2.0-6.0	.10
	3-4	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-4.0	.24
	4-5	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	5-13	44-100	0-49	0-10	1.15-1.45	6-100	0.05-0.12	0.0-2.9	0.5-5.0	.24
	13-21	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-1.0	.15
	21-32	70-100	0-29	0-8	1.25-1.55	6-100	0.02-0.05	0.0-2.9	0.0-0.5	.15
	32-80	70-100	0-29	0-6	1.45-1.65	20-100	0.01-0.02	0.0-2.9	---	.10
1170B:										
Henniker	0-2	---	---	0-17	0.07-0.60	2-6	0.35-0.65	0.0-2.9	50-100	---
	2-8	44-75	10-49	2-17	0.60-1.20	0.6-2	0.10-0.23	0.0-2.9	1.0-6.0	.20

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	8-20	44-75	10-49	2-17	1.30-1.55	0.6-2	0.06-0.16	0.0-2.9	1.0-4.0	.28
	20-31	44-75	10-49	2-17	1.30-1.55	0.6-2	0.06-0.16	0.0-2.9	0.5-2.5	.28
	31-52	44-85	0-49	0-10	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	52-72	44-85	0-49	0-10	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
1170C:										
Henniker------------	0-2	---	---	0-17	0.07-0.60	2-6	0.35-0.65	0.0-2.9	50-100	---
	2-8	44-75	10-49	2-17	0.60-1.20	0.6-2	0.10-0.23	0.0-2.9	1.0-6.0	.20
	8-20	44-75	10-49	2-17	1.30-1.55	0.6-2	0.06-0.16	0.0-2.9	1.0-4.0	.28
	20-31	44-75	10-49	2-17	1.30-1.55	0.6-2	0.06-0.16	0.0-2.9	0.5-2.5	.28
	31-52	44-85	0-49	0-10	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	52-72	44-85	0-49	0-10	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
1170E:										
Henniker------------	0-2	---	---	0-17	0.07-0.60	2-6	0.35-0.65	0.0-2.9	50-100	---
	2-8	44-75	10-49	2-17	0.60-1.20	0.6-2	0.10-0.23	0.0-2.9	1.0-6.0	.20
	8-20	44-75	10-49	2-17	1.30-1.55	0.6-2	0.06-0.16	0.0-2.9	1.0-4.0	.28
	20-31	44-75	10-49	2-17	1.30-1.55	0.6-2	0.06-0.16	0.0-2.9	0.5-2.5	.28
	31-52	44-85	0-49	0-10	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	52-72	44-85	0-49	0-10	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
1171B:										
Metacomet-----------	0-2	---	---	0-17	0.10-0.30	0.6-6	0.20-0.55	0.0-2.9	50-100	---
	2-8	44-80	10-49	2-10	0.60-1.20	0.6-2	0.10-0.23	0.0-2.9	2.0-6.0	.24
	8-20	44-80	10-49	2-10	1.30-1.55	0.6-2	0.06-0.16	0.0-2.9	0.5-2.0	.28
	20-27	44-80	10-49	2-10	1.30-1.60	0.6-2	0.06-0.16	0.0-2.9	0.2-1.0	.28
	27-31	45-90	5-40	0-7	1.40-1.75	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	31-45	45-90	5-40	0-7	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	45-72	45-90	5-40	0-7	1.45-1.75	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.1	.17
1171C:										
Metacomet-----------	0-2	---	---	0-17	0.10-0.30	0.6-6	0.20-0.55	0.0-2.9	50-100	---
	2-8	44-80	10-49	2-10	0.60-1.20	0.6-2	0.10-0.23	0.0-2.9	2.0-6.0	.24
	8-20	44-80	10-49	2-10	1.30-1.55	0.6-2	0.06-0.16	0.0-2.9	0.5-2.0	.28
	20-27	44-80	10-49	2-10	1.30-1.60	0.6-2	0.06-0.16	0.0-2.9	0.2-1.0	.28
	27-31	45-90	5-40	0-7	1.40-1.75	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	31-45	45-90	5-40	0-7	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	45-72	45-90	5-40	0-7	1.45-1.75	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.1	.17
1172B:										
Pillsbury, somewhat poorly drained-----	0-5	24-75	15-49	2-10	1.00-1.20	0.6-2	0.12-0.24	0.0-2.9	4.0-7.0	.24
	5-17	24-75	15-49	2-10	1.20-1.55	0.6-2	0.08-0.20	0.0-2.9	1.0-4.0	.32
	17-26	24-75	15-49	2-10	1.20-1.55	0.6-2	0.08-0.20	0.0-2.9	0.5-3.0	.32
	26-33	24-75	15-49	2-10	1.20-1.70	0.6-2	0.04-0.20	0.0-2.9	0.2-1.0	.24
	33-72	24-75	15-49	2-10	1.60-2.00	0.06-0.2	0.01-0.05	0.0-2.9	0.0-0.2	.24

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
1178A:										
Adirondack, very bouldery-----------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-4	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	4-6	44-85	0-49	0-17	0.60-1.30	0.6-2	0.15-0.21	0.0-2.9	1.0-4.0	.20
	6-8	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.28
	8-9	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.28
	9-18	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	1.0-8.0	.28
	18-26	33-85	0-50	0-17	1.30-1.60	0.6-2	0.14-0.20	0.0-2.9	0.0-2.0	.28
	26-34	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
	34-43	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
	43-72	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
1178B:										
Adirondack, very bouldery-----------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-4	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	4-6	44-85	0-49	0-17	0.60-1.30	0.6-2	0.15-0.21	0.0-2.9	1.0-4.0	.20
	6-8	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.28
	8-9	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.28
	9-18	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	1.0-8.0	.28
	18-26	33-85	0-50	0-17	1.30-1.60	0.6-2	0.14-0.20	0.0-2.9	0.0-2.0	.28
	26-34	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
	34-43	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
	43-72	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
1185A:										
Wonsqueak, undrained	0-9	---	---	0-17	0.10-0.30	0.2-6	0.20-0.50	0.0-2.9	70-100	---
	9-24	---	---	0-17	0.10-0.30	0.2-6	0.20-0.65	0.0-2.9	70-100	---
	24-44	---	---	0-17	0.10-0.30	0.2-6	0.20-0.65	0.0-2.9	70-100	---
	44-72	0-85	0-80	0-34	1.50-1.70	0.2-2	0.06-0.16	0.0-2.9	0.0-2.0	.32
1190C:										
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
Lyman, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	2-3	25-85	10-70	1-17	0.75-1.20	0.6-2	0.13-0.24	0.0-2.9	1.0-4.0	.20
	3-4	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	2.0-8.0	.32
	4-8	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	1.0-8.0	.32

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	8-14	30-80	10-60	0-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	0.5-6.0	.32
	14-24	---	---	---	---	0.0000-0.0015	---	---	---	---
1190E:										
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
Lyman, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	2-3	25-85	10-70	1-17	0.75-1.20	0.6-2	0.13-0.24	0.0-2.9	1.0-4.0	.20
	3-4	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	2.0-8.0	.32
	4-8	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	1.0-8.0	.32
	8-14	30-80	10-60	0-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	0.5-6.0	.32
	14-24	---	---	---	---	0.0000-0.0015	---	---	---	---
1190F:										
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
Lyman, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	2-3	25-85	10-70	1-17	0.75-1.20	0.6-2	0.13-0.24	0.0-2.9	1.0-4.0	.20
	3-4	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	2.0-8.0	.32
	4-8	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	1.0-8.0	.32
	8-14	30-80	10-60	0-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	0.5-6.0	.32
	14-24	---	---	---	---	0.0000-0.0015	---	---	---	---
1193A:										
Wonsqueak-----------	0-9	---	---	0-17	0.10-0.30	0.2-6	0.20-0.50	0.0-2.9	70-100	---
	9-24	---	---	0-17	0.10-0.30	0.2-6	0.20-0.65	0.0-2.9	70-100	---
	24-44	---	---	0-17	0.10-0.30	0.2-6	0.20-0.65	0.0-2.9	70-100	---
	44-72	0-85	0-80	0-34	1.50-1.70	0.2-2	0.06-0.16	0.0-2.9	0.0-2.0	.32

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
Humaquepts, frequently flooded-	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	50-95	---
	2-9	5-91	10-80	0-17	1.00-1.60	0.6-6	0.05-0.24	0.0-2.9	4.0-17	.43
	9-20	0-91	0-80	0-35	1.20-1.75	0.2-100	0.02-0.20	0.0-2.9	0.5-3.0	.24
	20-23	0-91	0-80	0-35	1.20-1.75	0.2-100	0.02-0.20	0.0-2.9	0.0-3.0	.24
	23-60	0-91	0-80	0-35	1.20-1.75	0.2-100	0.02-0.20	0.0-2.9	0.0-3.0	.10
1291C:										
Becket, very bouldery-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-5	44-85	0-49	0-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	0.5-4.0	.17
	5-8	44-85	0-49	0-17	1.30-1.50	0.6-2	0.10-0.35	0.0-2.9	4.0-10	.28
	8-15	44-85	0-49	0-17	1.30-1.50	0.6-2	0.06-0.20	0.0-2.9	1.0-8.0	.28
	15-26	44-91	0-49	0-17	1.50-1.75	0.6-2	0.05-0.16	0.0-2.9	0.1-2.0	.17
	26-38	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	38-72	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
Lyman, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	2-3	25-85	10-70	1-17	0.75-1.20	0.6-2	0.13-0.24	0.0-2.9	1.0-4.0	.20
	3-4	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	2.0-8.0	.32
	4-8	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	1.0-8.0	.32
	8-14	30-80	10-60	0-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	0.5-6.0	.32
	14-24	---	---	---	---	0.0000-0.0015	---	---	---	---
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
1291D:										
Becket, very bouldery-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-5	44-85	0-49	0-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	0.5-4.0	.17
	5-8	44-85	0-49	0-17	1.30-1.50	0.6-2	0.10-0.35	0.0-2.9	4.0-10	.28
	8-15	44-85	0-49	0-17	1.30-1.50	0.6-2	0.06-0.20	0.0-2.9	1.0-8.0	.28
	15-26	44-91	0-49	0-17	1.50-1.75	0.6-2	0.05-0.16	0.0-2.9	0.1-2.0	.17
	26-38	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	38-72	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
Lyman, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	2-3	25-85	10-70	1-17	0.75-1.20	0.6-2	0.13-0.24	0.0-2.9	1.0-4.0	.20
	3-4	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	2.0-8.0	.32
	4-8	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	1.0-8.0	.32
	8-14	30-80	10-60	0-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	0.5-6.0	.32
	14-24	---	---	---	---	0.0000-0.0015	---	---	---	---
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
1292C:										
Becket, very bouldery-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-5	44-85	0-49	0-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	0.5-4.0	.17
	5-8	44-85	0-49	0-17	1.30-1.50	0.6-2	0.10-0.35	0.0-2.9	4.0-10	.28
	8-15	44-85	0-49	0-17	1.30-1.50	0.6-2	0.06-0.20	0.0-2.9	1.0-8.0	.28
	15-26	44-91	0-49	0-17	1.50-1.75	0.6-2	0.05-0.16	0.0-2.9	0.1-2.0	.17
	26-38	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	38-72	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
1292E:										
Becket, very bouldery-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-5	44-85	0-49	0-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	0.5-4.0	.17
	5-8	44-85	0-49	0-17	1.30-1.50	0.6-2	0.10-0.35	0.0-2.9	4.0-10	.28
	8-15	44-85	0-49	0-17	1.30-1.50	0.6-2	0.06-0.20	0.0-2.9	1.0-8.0	.28
	15-26	44-91	0-49	0-17	1.50-1.75	0.6-2	0.05-0.16	0.0-2.9	0.1-2.0	.17
	26-38	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	38-72	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
1292F:										
Becket, very bouldery-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-5	44-85	0-49	0-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	0.5-4.0	.17
	5-8	44-85	0-49	0-17	1.30-1.50	0.6-2	0.10-0.35	0.0-2.9	4.0-10	.28
	8-15	44-85	0-49	0-17	1.30-1.50	0.6-2	0.06-0.20	0.0-2.9	1.0-8.0	.28
	15-26	44-91	0-49	0-17	1.50-1.75	0.6-2	0.05-0.16	0.0-2.9	0.1-2.0	.17
	26-38	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	38-72	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
1293C:										
Skerry, very bouldery-----------	0-3	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	3-5	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	5-7	44-75	15-49	1-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	1.0-4.0	.24
	7-11	44-75	15-49	1-17	1.30-1.50	0.6-2	0.06-0.23	0.0-2.9	1.0-8.0	.24
	11-17	44-75	15-49	1-17	1.30-1.50	0.6-2	0.06-0.23	0.0-2.9	1.0-8.0	.24
	17-29	44-91	15-49	1-17	1.40-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.24
	29-72	44-91	5-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
1380C:										
Becket, very bouldery-----------	0-1	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-5	44-85	0-49	0-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	0.5-4.0	.17
	5-8	44-85	0-49	0-17	1.30-1.50	0.6-2	0.10-0.35	0.0-2.9	4.0-10	.28
	8-15	44-85	0-49	0-17	1.30-1.50	0.6-2	0.06-0.20	0.0-2.9	1.0-8.0	.28
	15-26	44-91	0-49	0-17	1.50-1.75	0.6-2	0.05-0.16	0.0-2.9	0.1-2.0	.17
	26-38	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	38-72	44-91	0-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
Skerry, very bouldery-----------	0-3	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	3-5	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	5-7	44-75	15-49	1-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	1.0-4.0	.24
	7-11	44-75	15-49	1-17	1.30-1.50	0.6-2	0.06-0.23	0.0-2.9	1.0-8.0	.24
	11-17	44-75	15-49	1-17	1.30-1.50	0.6-2	0.06-0.23	0.0-2.9	1.0-8.0	.24
	17-29	44-91	15-49	1-17	1.40-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.24
	29-72	44-91	5-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
1391C:										
Lyman, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	2-3	25-85	10-70	1-17	0.75-1.20	0.6-2	0.13-0.24	0.0-2.9	1.0-4.0	.20
	3-4	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	2.0-8.0	.32
	4-8	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	1.0-8.0	.32
	8-14	30-80	10-60	0-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	0.5-6.0	.32
	14-24	---	---	---	---	0.0000-0.0015	---	---	---	---
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
Rock Outcrop--------	0-10	---	---	---	---	0.0000-0.0015	---	---	---	---
1391D:										
Lyman, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	2-3	25-85	10-70	1-17	0.75-1.20	0.6-2	0.13-0.24	0.0-2.9	1.0-4.0	.20
	3-4	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	2.0-8.0	.32
	4-8	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	1.0-8.0	.32

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
	8-14	30-80	10-60	0-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	0.5-6.0	.32
	14-24	---	---	---	---	0.0000-0.0015	---	---	---	---
Tunbridge, very bouldery-----------	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-3	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	3-4	25-80	15-70	1-17	0.60-1.20	0.6-2	0.11-0.21	0.0-2.9	1.0-4.0	.20
	4-5	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	2.0-10	.20
	5-8	25-80	15-70	1-17	0.60-1.20	0.6-2	0.10-0.21	0.0-2.9	1.0-8.0	.20
	8-22	25-80	10-70	1-17	0.60-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.20
	22-32	---	---	---	---	0.0000-0.0015	---	---	---	---
Rock Outcrop--------	0-10	---	---	---	---	0.0000-0.0015	---	---	---	---
1580B:										
Adirondack, very bouldery-----------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.50	---	50-100	---
	2-4	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	4-6	44-85	0-49	0-17	0.60-1.30	0.6-2	0.15-0.21	0.0-2.9	1.0-4.0	.20
	6-8	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.28
	8-9	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.28
	9-18	33-85	0-50	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	1.0-8.0	.28
	18-26	33-85	0-50	0-17	1.30-1.60	0.6-2	0.14-0.20	0.0-2.9	0.0-2.0	.28
	26-34	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
	34-43	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
	43-72	44-91	0-49	0-17	1.60-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.24
Skerry, very bouldery-----------	0-3	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	3-5	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	---	35-100	---
	5-7	44-75	15-49	1-17	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	1.0-4.0	.24
	7-11	44-75	15-49	1-17	1.30-1.50	0.6-2	0.06-0.23	0.0-2.9	1.0-8.0	.24
	11-17	44-75	15-49	1-17	1.30-1.50	0.6-2	0.06-0.23	0.0-2.9	1.0-8.0	.24
	17-29	44-91	15-49	1-17	1.40-1.60	0.6-2	0.06-0.16	0.0-2.9	0.0-2.0	.24
	29-72	44-91	5-49	0-17	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
1591F:										
Lyman, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	2-3	25-85	10-70	1-17	0.75-1.20	0.6-2	0.13-0.24	0.0-2.9	1.0-4.0	.20
	3-4	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	2.0-8.0	.32
	4-8	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	1.0-8.0	.32
	8-14	30-80	10-60	0-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	0.5-6.0	.32
	14-24	---	---	---	---	0.0000-0.0015	---	---	---	---

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
Berkshire, very bouldery----------	0-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.60	0.0-2.9	50-100	---
	2-5	24-51	29-49	1-17	1.10-1.15	0.6-6	0.06-0.22	0.0-2.9	2.0-6.0	.24
	5-6	24-84	1-49	1-17	1.15-1.30	0.6-6	0.10-0.20	0.0-2.9	0.5-4.0	.24
	6-9	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	4.0-10	.24
	9-21	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	1.0-8.0	.24
	21-30	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.20	0.0-2.9	0.1-2.0	.24
	30-32	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	0.0-2.0	.24
	32-74	24-84	1-49	1-17	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	0.0-0.2	.24
1911C:										
Potsdam, very bouldery----------	0-2	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	2-8	32-52	28-50	7-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	1.0-6.0	.32
	8-10	15-85	0-80	0-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	1.0-4.0	.32
	10-13	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	4.0-10	.32
	13-19	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.32
	19-25	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	1.0-8.0	.32
	25-28	44-85	0-49	0-17	1.30-1.60	0.6-2	0.08-0.15	0.0-2.9	0.1-2.0	.28
	28-72	44-85	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.28
Lyman, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	2-3	25-85	10-70	1-17	0.75-1.20	0.6-2	0.13-0.24	0.0-2.9	1.0-4.0	.20
	3-4	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	2.0-8.0	.32
	4-8	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	1.0-8.0	.32
	8-14	30-80	10-60	0-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	0.5-6.0	.32
	14-24	---	---	---	---	0.0000-0.0015	---	---	---	---
1911E:										
Potsdam, very bouldery----------	0-2	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	---	50-100	---
	2-8	32-52	28-50	7-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	1.0-6.0	.32
	8-10	15-85	0-80	0-17	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	1.0-4.0	.32
	10-13	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	4.0-10	.32
	13-19	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	2.0-10	.32
	19-25	15-85	0-80	0-17	1.20-1.50	0.6-2	0.14-0.20	0.0-2.9	1.0-8.0	.32
	25-28	44-85	0-49	0-17	1.30-1.60	0.6-2	0.08-0.15	0.0-2.9	0.1-2.0	.28
	28-72	44-85	0-49	0-17	1.70-2.00	0.06-0.2	0.04-0.10	0.0-2.9	0.0-0.2	.28
Lyman, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	---	---	0-17	0.10-0.40	0.2-6	0.20-0.65	0.0-2.9	35-100	---
	2-3	25-85	10-70	1-17	0.75-1.20	0.6-2	0.13-0.24	0.0-2.9	1.0-4.0	.20
	3-4	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	2.0-8.0	.32
	4-8	25-75	15-70	1-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	1.0-8.0	.32
	8-14	30-80	10-60	0-17	0.90-1.40	0.6-2	0.08-0.28	0.0-2.9	0.5-6.0	.32
	14-24	---	---	---	---	0.0000-0.0015	---	---	---	---

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
1920B:										
Monadnock, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	40-85	20-50	2-17	0.80-1.20	0.6-2	0.12-0.22	0.0-2.9	2.0-8.0	.20
	2-7	40-85	20-50	1-17	0.80-1.20	0.6-2	0.10-0.20	0.0-2.9	1.0-4.0	.20
	7-14	40-85	20-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	1.0-8.0	.28
	14-27	40-91	10-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	0.2-2.0	.28
	27-41	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
	41-72	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
1920C:										
Monadnock, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	40-85	20-50	2-17	0.80-1.20	0.6-2	0.12-0.22	0.0-2.9	2.0-8.0	.20
	2-7	40-85	20-50	1-17	0.80-1.20	0.6-2	0.10-0.20	0.0-2.9	1.0-4.0	.20
	7-14	40-85	20-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	1.0-8.0	.28
	14-27	40-91	10-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	0.2-2.0	.28
	27-41	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
	41-72	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
1920E:										
Monadnock, very bouldery	0-1	---	---	0-17	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	50-100	---
	1-2	40-85	20-50	2-17	0.80-1.20	0.6-2	0.12-0.22	0.0-2.9	2.0-8.0	.20
	2-7	40-85	20-50	1-17	0.80-1.20	0.6-2	0.10-0.20	0.0-2.9	1.0-4.0	.20
	7-14	40-85	20-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	1.0-8.0	.28
	14-27	40-91	10-50	1-17	0.80-1.30	0.6-2	0.09-0.17	0.0-2.9	0.2-2.0	.28
	27-41	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
	41-72	70-91	4-29	0-5	1.30-1.60	2-6	0.04-0.08	0.0-2.9	0.0-0.2	.17
1941A:										
Sabattis, very bouldery	0-8	---	---	0-17	0.10-0.40	0.6-6	0.20-0.65	---	35-100	---
	8-11	15-75	15-70	2-17	0.80-1.10	0.6-6	0.14-0.25	0.0-2.9	4.0-30	.20
	11-21	15-75	15-70	2-17	1.30-1.60	0.6-6	0.08-0.18	0.0-2.9	1.0-5.0	.24
	21-31	24-75	15-50	1-17	1.40-1.70	0.2-2	0.07-0.14	0.0-2.9	0.0-0.2	.24
	31-37	20-75	15-70	1-17	1.40-1.70	0.2-2	0.07-0.14	0.0-2.9	0.0-0.2	.24
	37-72	24-80	15-50	1-17	1.40-1.70	0.2-2	0.07-0.14	0.0-2.9	0.0-0.2	.24
2170B:										
Henniker, very stony	0-2	---	---	0-17	0.07-0.60	2-6	0.35-0.65	0.0-2.9	50-100	---
	2-8	44-75	10-49	2-17	0.60-1.20	0.6-2	0.10-0.23	0.0-2.9	1.0-6.0	.20
	8-20	44-75	10-49	2-17	1.30-1.55	0.6-2	0.06-0.16	0.0-2.9	1.0-4.0	.28
	20-31	44-75	10-49	2-17	1.30-1.55	0.6-2	0.06-0.16	0.0-2.9	0.5-2.5	.28
	31-52	44-85	0-49	0-10	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	52-72	44-85	0-49	0-10	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
2170C:										
Henniker, very stony	0-2	---	---	0-17	0.07-0.60	2-6	0.35-0.65	0.0-2.9	50-100	---
	2-8	44-75	10-49	2-17	0.60-1.20	0.6-2	0.10-0.23	0.0-2.9	1.0-6.0	.20
	8-20	44-75	10-49	2-17	1.30-1.55	0.6-2	0.06-0.16	0.0-2.9	1.0-4.0	.28
	20-31	44-75	10-49	2-17	1.30-1.55	0.6-2	0.06-0.16	0.0-2.9	0.5-2.5	.28
	31-52	44-85	0-49	0-10	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	52-72	44-85	0-49	0-10	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
2170E:										
Henniker, very stony	0-2	---	---	0-17	0.07-0.60	2-6	0.35-0.65	0.0-2.9	50-100	---
	2-8	44-75	10-49	2-17	0.60-1.20	0.6-2	0.10-0.23	0.0-2.9	1.0-6.0	.20
	8-20	44-75	10-49	2-17	1.30-1.55	0.6-2	0.06-0.16	0.0-2.9	1.0-4.0	.28
	20-31	44-75	10-49	2-17	1.30-1.55	0.6-2	0.06-0.16	0.0-2.9	0.5-2.5	.28
	31-52	44-85	0-49	0-10	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	52-72	44-85	0-49	0-10	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
2171B:										
Metacomet, very stony--------------	0-2	---	---	0-17	0.10-0.30	0.6-6	0.20-0.55	0.0-2.9	50-100	---
	2-8	44-80	10-49	2-10	0.60-1.20	0.6-2	0.10-0.23	0.0-2.9	2.0-6.0	.24
	8-20	44-80	10-49	2-10	1.30-1.55	0.6-2	0.06-0.16	0.0-2.9	0.5-2.0	.28
	20-27	44-80	10-49	2-10	1.30-1.60	0.6-2	0.06-0.16	0.0-2.9	0.2-1.0	.28
	27-31	45-90	5-40	0-7	1.40-1.75	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	31-45	45-90	5-40	0-7	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	45-72	45-90	5-40	0-7	1.45-1.75	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.1	.17
2171C:										
Metacomet, very stony--------------	0-2	---	---	0-17	0.10-0.30	0.6-6	0.20-0.55	0.0-2.9	50-100	---
	2-8	44-80	10-49	2-10	0.60-1.20	0.6-2	0.10-0.23	0.0-2.9	2.0-6.0	.24
	8-20	44-80	10-49	2-10	1.30-1.55	0.6-2	0.06-0.16	0.0-2.9	0.5-2.0	.28
	20-27	44-80	10-49	2-10	1.30-1.60	0.6-2	0.06-0.16	0.0-2.9	0.2-1.0	.28
	27-31	45-90	5-40	0-7	1.40-1.75	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	31-45	45-90	5-40	0-7	1.60-2.00	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.2	.17
	45-72	45-90	5-40	0-7	1.45-1.75	0.06-0.6	0.03-0.09	0.0-2.9	0.0-0.1	.17
2172B:										
Pillsbury, very stony--------------	0-5	24-75	15-49	2-10	1.00-1.20	0.6-2	0.12-0.24	0.0-2.9	4.0-7.0	.24
	5-17	24-75	15-49	2-10	1.20-1.55	0.6-2	0.08-0.20	0.0-2.9	1.0-4.0	.32
	17-26	24-75	15-49	2-10	1.20-1.55	0.6-2	0.08-0.20	0.0-2.9	0.5-3.0	.32
	26-33	24-75	15-49	2-10	1.20-1.70	0.6-2	0.04-0.20	0.0-2.9	0.2-1.0	.24
	33-72	24-75	15-49	2-10	1.60-2.00	0.06-0.2	0.01-0.05	0.0-2.9	0.0-0.2	.24

Table 19.—Physical and Chemical Properties of the Soils—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion
										Kw
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	
DeB:										
Deerfield-----------	0-10	71-89	1-29	1-14	1.00-1.20	2-20	0.07-0.13	0.0-2.9	1.0-6.0	.20
	10-14	71-100	1-29	1-14	1.20-1.45	6-20	0.01-0.13	0.0-2.9	0.0-2.0	.17
	14-26	71-100	1-29	1-14	1.20-1.45	6-20	0.01-0.13	0.0-2.9	0.0-2.0	.17
	26-44	86-100	0-14	1-9	1.40-1.50	20-100	0.01-0.08	0.0-2.9	0.0-1.0	.17
	44-72	86-100	0-14	1-9	1.40-1.50	20-100	0.01-0.08	0.0-2.9	0.0-1.0	.17
GP:										
Pits, sand and gravel-------------	0-72	71-100	0-29	1-14	1.20-1.40	6-100	0.01-0.10	0.0-2.9	---	.02

Table 20.—Soil Features

(See text for definitions of terms used in this table. Absence of an entry indicates that the feature is not a co
data were not estimated.)

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Restrictive layer: Thickness	Restrictive layer: Hardness	Subsidence: Initial	Subsidence: Total	Potential for frost action	R Unc st
		In	In		In	In		
3A:								
Endoaquolls, frequently flooded	---	---	---	---	---	---	High	High
Hapludolls, frequently flooded	---	---	---	---	---	---	Moderate	High
4C:								
Udorthents, smoothed	---	---	---	---	---	---	Moderate	Moder
5C:								
Udorthents, refuse substratum	---	---	---	---	---	---	Low	-
6A:								
Saprists, frequently ponded	---	---	---	---	6-18	12-51	High	Moder
Aquents, frequently ponded	---	---	---	---	---	---	High	Moder
7B:								
Endoaquents, smoothed	---	---	---	---	---	---	High	High
10A:								
Pleasant Lake	---	---	---	---	6-18	50-55	High	High
Burnt Vly	---	---	---	---	6-18	12-51	High	High
11B:								
Hinckley	---	---	---	---	---	---	Low	Low
Windsor	---	---	---	---	---	---	Low	Low
11C:								
Hinckley	---	---	---	---	---	---	Low	Low
Windsor	---	---	---	---	---	---	Low	Low
11D:								
Hinckley	---	---	---	---	---	---	Low	Low
Windsor	---	---	---	---	---	---	Low	Low

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	R
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Unc st
		In	In		In	In		
11E:								
Hinckley	---	---	---	---	---	---	Low	Low
Windsor	---	---	---	---	---	---	Low	Low
13F:								
Lansing	Dense material	32-60	---	Weakly cemented	---	---	Moderate	Low
Mohawk	Dense material	32-60	---	Weakly cemented	---	---	Moderate	Moder
16E:								
Broadalbin	Fragipan	18-36	8-42	Weakly cemented	---	---	Moderate	Low
17D:								
Hollis	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
Rock outcrop	Lithic bedrock	0-0	---	Indurated	---	---	None	-
18C:								
Chatfield	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
Hollis	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
18D:								
Chatfield	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
Hollis	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
21B:								
Galway	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
21C:								
Galway	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
22B:								
Georgia	Dense material	40-60	---	Weakly cemented	---	---	Moderate	Moder
24B:								
Farmington	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
24C:								
Farmington	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
25A:								
Wonsqueak, ponded	---	---	---	---	6-18	12-51	High	High

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	F
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Unc st
		In	In		In	In		
Colton-----------------	---	---	---	---	---	---	Low	Low
Rumney-----------------	---	---	---	---	---	---	High	High
25D:								
Farmington, very rocky-	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
32B:								
Mohawk-----------------	Dense material	32-60	---	Weakly cemented	---	---	Moderate	Moder
32C:								
Mohawk-----------------	Dense material	32-60	---	Weakly cemented	---	---	Moderate	Moder
32D:								
Mohawk-----------------	Dense material	32-60	---	Weakly cemented	---	---	Moderate	Moder
33B:								
Angola-----------------	Lithic bedrock	20-40	---	Indurated	---	---	High	High
34A:								
Manheim----------------	---	---	---	---	---	---	High	High
34B:								
Manheim----------------	---	---	---	---	---	---	High	High
42B:								
Lansing----------------	Dense material	32-60	---	Weakly cemented	---	---	Moderate	Low
42C:								
Lansing----------------	Dense material	32-60	---	Weakly cemented	---	---	Moderate	Low
42D:								
Lansing----------------	Dense material	32-60	---	Weakly cemented	---	---	Moderate	Low
44A:								
Appleton---------------	---	---	---	---	---	---	High	High
44B:								
Appleton---------------	---	---	---	---	---	---	High	High
47A:								
Ilion------------------	---	---	---	---	---	---	High	High
47B:								
Ilion------------------	---	---	---	---	---	---	High	High

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Restrictive layer: Thickness	Restrictive layer: Hardness	Subsidence: Initial	Subsidence: Total	Potential for frost action	R... Unc... st...
		In	In		In	In		
49A:								
Fonda	---	---	---	---	---	---	High	High
72B:								
Broadalbin, well drained	Fragipan	18-36	8-42	Weakly cemented	---	---	Moderate	Low
Broadalbin, moderately well drained	Fragipan	18-36	8-42	Weakly cemented	---	---	Moderate	Moder
72C:								
Broadalbin	Fragipan	18-36	8-42	Weakly cemented	---	---	Moderate	Low
72D:								
Broadalbin	Fragipan	18-36	8-42	Weakly cemented	---	---	Moderate	Low
74A:								
Mosherville	Fragipan	13-30	8-47	Weakly cemented	---	---	High	High
74B:								
Mosherville	Fragipan	13-30	8-47	Weakly cemented	---	---	High	High
77A:								
Sun	Dense material	20-40	---	Weakly cemented	---	---	High	High
81B:								
Charlton	---	---	---	---	---	---	Moderate	Low
81C:								
Charlton	---	---	---	---	---	---	Moderate	Low
81D:								
Charlton	---	---	---	---	---	---	Moderate	Low
89A:								
Whitman	Dense material	12-20	---	Weakly cemented	---	---	High	High
90B:								
Palatine	Paralithic bedrock	20-40	---	Very strongly cemented	---	---	Moderate	Low
90C:								
Palatine	Paralithic bedrock	20-40	---	Very strongly cemented	---	---	Moderate	Low

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	R
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Unc st
		In	In		In	In		
90D:								
Palatine	Paralithic bedrock	20-40	---	Very strongly cemented	---	---	Moderate	Low
94B:								
Paxton	Dense material	20-40	---	Weakly cemented	---	---	Moderate	Low
94C:								
Paxton	Dense material	20-40	---	Weakly cemented	---	---	Moderate	Low
94D:								
Paxton	Dense material	20-40	---	Weakly cemented	---	---	Moderate	Low
95B:								
Woodbridge	Dense material	20-40	---	Weakly cemented	---	---	Moderate	Moder
96B:								
Ridgebury	Dense material	20-36	---	Weakly cemented	---	---	High	High
99A:								
Timakwa, undrained	---	---	---	---	6-18	12-51	High	High
109A:								
Catden, undrained	---	---	---	---	6-18	50-60	High	High
112A:								
Scio	---	---	---	---	---	---	High	Moder
Urban land	Human-manufactured materials	0-0	---	Indurated	---	---	---	-
114B:								
Windsor	---	---	---	---	---	---	Low	Low
Urban land	Human-manufactured materials	0-0	---	Indurated	---	---	---	-
114C:								
Windsor	---	---	---	---	---	---	Low	Low
Urban land	Human-manufactured materials	0-0	---	Indurated	---	---	---	-

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	R
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Unc st
		In	In		In	In		
114D:								
Windsor	---	---	---	---	---	---	Low	Low
Urban land	Human-manufactured materials	0-0	---	Indurated	---	---	---	-
115B:								
Udipsamments, smoothed	---	---	---	---	---	---	Low	Low
116:								
Urban land	Human-manufactured materials	0-0	---	Indurated	---	---	---	-
117B:								
Broadalbin, moderately well drained	Fragipan	18-36	8-42	Weakly cemented	---	---	Moderate	Low
Urban land	Human-manufactured materials	0-0	---	Indurated	---	---	---	-
117C:								
Broadalbin, well drained	Fragipan	18-36	8-42	Weakly cemented	---	---	Moderate	Low
Urban land	Human-manufactured materials	0-0	---	Indurated	---	---	---	-
130B:								
Hudson	---	---	---	---	---	---	Moderate	High
130C:								
Hudson	---	---	---	---	---	---	Moderate	High
134A:								
Rhinebeck	---	---	---	---	---	---	High	High
134B:								
Rhinebeck	---	---	---	---	---	---	High	High
135A:								
Churchville	---	---	---	---	---	---	High	High

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	R
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Unc st
		In	In		In	In		
135B:								
Churchville	---	---	---	---	---	---	High	High
137A:								
Madalin	---	---	---	---	---	---	High	High
151B:								
Unadilla	---	---	---	---	---	---	High	Low
152A:								
Scio	---	---	---	---	---	---	High	Moder
152B:								
Scio	---	---	---	---	---	---	High	Moder
154A:								
Tonawanda	---	---	---	---	---	---	High	High
154B:								
Tonawanda	---	---	---	---	---	---	High	High
157A:								
Birdsall	---	---	---	---	---	---	High	High
160A:								
Agawam	---	---	---	---	---	---	Moderate	Low
160B:								
Agawam	---	---	---	---	---	---	Moderate	Low
162B:								
Ninigret	---	---	---	---	---	---	Moderate	Moder
165A:								
Stafford	---	---	---	---	---	---	Moderate	Low
170B:								
Windsor	---	---	---	---	---	---	Low	Low
170C:								
Windsor	---	---	---	---	---	---	Low	Low
170D:								
Windsor	---	---	---	---	---	---	Low	Low

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	R[illegible]
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Unc[illegible] st[illegible]
		In	In		In	In		
179A:								
Scarboro	---	---	---	---	---	---	High	High
182A:								
Elmridge	Abrupt textural change	18-40	---	---	---	---	Moderate	High
182B:								
Elmridge	Abrupt textural change	18-40	---	---	---	---	Moderate	High
187A:								
Aeric Epiaquepts, somewhat poorly drained	Abrupt textural change	18-40	---	---	---	---	High	High
Aeric Epiaquepts, poorly drained	Abrupt textural change	18-40	---	---	---	---	High	High
189A:								
Cheektowaga	Abrupt textural change	20-40	---	---	---	---	High	High
197A:								
Fredon, somewhat poorly drained	---	---	---	---	---	---	High	Low
201B:								
Alton	---	---	---	---	---	---	Moderate	Low
201C:								
Alton	---	---	---	---	---	---	Moderate	Low
201D:								
Alton	---	---	---	---	---	---	Moderate	Low
210A:								
Merrimac	---	---	---	---	---	---	Low	Low
210B:								
Merrimac	---	---	---	---	---	---	Low	Low
210C:								
Merrimac	---	---	---	---	---	---	Low	Low

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Ri
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Unc st
		In	In		In	In		
210D:								
Merrimac	---	---	---	---	---	---	Low	Low
211A:								
Burnt Vly	---	---	---	---	6-18	12-51	High	High
Humaquepts	---	---	---	---	---	---	High	High
Pleasant Lake	---	---	---	---	6-18	50-55	High	High
212A:								
Hinckley	---	---	---	---	---	---	Low	Low
212B:								
Hinckley	---	---	---	---	---	---	Low	Low
212C:								
Hinckley	---	---	---	---	---	---	Low	Low
232A:								
Teel	---	---	---	---	---	---	Moderate	Modera
244A:								
Darien	---	---	---	---	---	---	High	High
244B:								
Darien	---	---	---	---	---	---	High	High
363A:								
Adams	---	---	---	---	---	---	Low	Low
363B:								
Adams	---	---	---	---	---	---	Low	Low
363D:								
Adams	---	---	---	---	---	---	Low	Low
363F:								
Adams	---	---	---	---	---	---	Low	Low
365A:								
Naumburg	---	---	---	---	---	---	Moderate	High
Croghan	---	---	---	---	---	---	Low	Low

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	R
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Unc st
		In	In		In	In		
368A:								
Searsport	---	---	---	---	---	---	Moderate	High
Wonsqueak	---	---	---	---	6-18	12-51	High	High
Naumburg	---	---	---	---	---	---	Moderate	High
375A:								
Colton	---	---	---	---	---	---	Low	Low
Adams	---	---	---	---	---	---	Low	Low
375C:								
Colton	---	---	---	---	---	---	Low	Low
Adams	---	---	---	---	---	---	Low	Low
375D:								
Colton	---	---	---	---	---	---	Low	Low
Adams	---	---	---	---	---	---	Low	Low
650C:								
Monadnock, very bouldery	---	---	---	---	---	---	Moderate	Low
Adams	---	---	---	---	---	---	Low	Low
Colton	---	---	---	---	---	---	Low	Low
650D:								
Monadnock, very bouldery	---	---	---	---	---	---	Moderate	Low
Adams	---	---	---	---	---	---	Low	Low
Colton	---	---	---	---	---	---	Low	Low
651C:								
Monadnock, very bouldery	---	---	---	---	---	---	Moderate	Low
Tunbridge, rolling, very bouldery	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
Sabattis, very bouldery	---	---	---	---	---	---	High	High

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	R
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Unc st
		In	In		In	In		
651D:								
Monadnock, very bouldery	---	---	---	---	---	---	Moderate	Low
Tunbridge, hilly, very bouldery	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
651F:								
Monadnock, very bouldery	---	---	---	---	---	---	Moderate	Low
Tunbridge, very bouldery	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
653C:								
Monadnock, very bouldery	---	---	---	---	---	---	Moderate	Low
653D:								
Monadnock, very bouldery	---	---	---	---	---	---	Moderate	Low
708B:								
Adirondack, very bouldery	Dense material	15-38	---	Weakly cemented	---	---	High	High
Sabattis, very bouldery	---	---	---	---	---	---	High	High
Tughill, very bouldery	---	---	---	---	---	---	High	High
711C:								
Adirondack, very bouldery	Dense material	15-38	---	Weakly cemented	---	---	High	High
Tunbridge, very bouldery	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
Burnt Vly	---	---	---	---	6-18	12-51	High	High
721C:								
Becket, very bouldery	Dense material	20-36	---	Weakly cemented	---	---	Moderate	Low
Tunbridge, very bouldery	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Restrictive layer: Thickness	Restrictive layer: Hardness	Subsidence: Initial	Subsidence: Total	Potential for frost action	R... Unc st...
		In	In		In	In		
Skerry, very bouldery--	Dense material	20-38	---	Weakly cemented	---	---	Moderate	Moder
721D:								
Becket, very bouldery--	Dense material	20-36	---	Weakly cemented	---	---	Moderate	Low
Tunbridge, very bouldery--------------	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
721F:								
Becket, very bouldery--	Dense material	20-36	---	Weakly cemented	---	---	Moderate	Low
Tunbridge, very bouldery--------------	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
723C:								
Becket, very bouldery--	Dense material	20-36	---	Weakly cemented	---	---	Moderate	Low
723D:								
Becket, very bouldery--	Dense material	20-36	---	Weakly cemented	---	---	Moderate	Low
725B:								
Skerry, very bouldery--	Dense material	20-38	---	Weakly cemented	---	---	Moderate	Moder
Becket, very bouldery--	Dense material	20-36	---	Weakly cemented	---	---	Moderate	Low
727B:								
Skerry, very bouldery--	Dense material	20-38	---	Weakly cemented	---	---	Moderate	Moder
Adirondack, very bouldery--------------	Dense material	15-38	---	Weakly cemented	---	---	High	High
741C:								
Potsdam, very bouldery-	Dense material	20-40	---	Weakly cemented	---	---	Moderate	Low
Tunbridge, very bouldery--------------	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
741D:								
Potsdam, very bouldery-	Dense material	20-40	---	Weakly cemented	---	---	Moderate	Low
Tunbridge, very bouldery--------------	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
743C:								
Potsdam, very bouldery-	Dense material	20-40	---	Weakly cemented	---	---	Moderate	Low

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	R
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Unc st
		In	In		In	In		
743D:								
Potsdam, very bouldery-	Dense material	20-40	---	Weakly cemented	---	---	Moderate	Low
745C:								
Crary, very bouldery---	Dense material	20-40	---	Weakly cemented	---	---	High	Moder
Potsdam, very bouldery-	Dense material	20-40	---	Weakly cemented	---	---	Moderate	Low
747B:								
Crary, very bouldery---	Dense material	20-40	---	Weakly cemented	---	---	High	Moder
Adirondack, very bouldery--------------	Dense material	15-38	---	Weakly cemented	---	---	High	High
831C:								
Tunbridge, very bouldery--------------	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
Lyman, very bouldery---	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
831D:								
Tunbridge, very bouldery--------------	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
Lyman, very bouldery---	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
831F:								
Tunbridge, very bouldery--------------	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
Lyman, very bouldery---	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
833C:								
Tunbridge, very bouldery--------------	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
Adirondack, very bouldery--------------	Dense material	15-38	---	Weakly cemented	---	---	High	High
Lyman, very bouldery---	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
836C:								
Tunbridge, very bouldery--------------	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	R…
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Unc… st…
		In	In		In	In		
Wonsqueak	---	---	---	---	---	12-51	High	High
Knob Lock, very bouldery	Lithic bedrock	1-20	---	Indurated	---	---	Low	Low
851C:								
Lyman, very bouldery	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
Knob Lock, very bouldery	Lithic bedrock	1-20	---	Indurated	---	---	Low	Low
851D:								
Lyman, very bouldery	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
Knob Lock, very bouldery	Lithic bedrock	1-20	---	Indurated	---	---	Low	Low
851F:								
Lyman, very bouldery	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
Knob Lock, very bouldery	Lithic bedrock	1-20	---	Indurated	---	---	Low	Low
931D:								
Mundalite, very bouldery	Dense material	25-40	---	Weakly cemented	---	---	Moderate	Low
Rawsonville, very bouldery	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
931F:								
Mundalite, very bouldery	Dense material	25-40	---	Weakly cemented	---	---	Moderate	Low
Rawsonville, very bouldery	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
941C:								
Rawsonville, very bouldery	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
Hogback, very bouldery	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
941D:								
Rawsonville, very bouldery	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	R…
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Unc… st…
		In	In		In	In		
Hogback, very bouldery-	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
941F:								
Rawsonville, very bouldery-------------	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
Hogback, very bouldery-	Lithic bedrock	10-20	---	---	---	---	Moderate	Low
1018B:								
Colton-----------------	---	---	---	---	---	---	Low	Low
1018C:								
Colton-----------------	---	---	---	---	---	---	Low	Low
1018D:								
Colton-----------------	---	---	---	---	---	---	Low	Low
1022A:								
Croghan----------------	---	---	---	---	---	---	Low	Low
1023A:								
Naumburg---------------	---	---	---	---	---	---	Moderate	High
1024A:								
Searsport--------------	---	---	---	---	---	---	Moderate	High
1025A:								
Adams------------------	---	---	---	---	---	---	Low	Low
1025B:								
Adams------------------	---	---	---	---	---	---	Low	Low
1025C:								
Adams------------------	---	---	---	---	---	---	Low	Low
1025E:								
Adams------------------	---	---	---	---	---	---	Low	Low
1025F:								
Adams------------------	---	---	---	---	---	---	Low	Low
1027B:								
Allagash---------------	---	---	---	---	---	---	Moderate	Low
1027C:								
Allagash---------------	---	---	---	---	---	---	Moderate	Low

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	R
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Unc st
		In	In		In	In		
1027E:								
Allagash---------------	---	---	---	---	---	---	Moderate	Low
1070B:								
Berkshire, very bouldery--------------	---	---	---	---	---	---	Moderate	Low
1070C:								
Berkshire, very bouldery--------------	---	---	---	---	---	---	Moderate	Low
1070E:								
Berkshire, very bouldery--------------	---	---	---	---	---	---	Moderate	Low
1075B:								
Potsdam, very bouldery-	Dense material	20-40	---	Weakly cemented	---	---	Moderate	Low
1075C:								
Potsdam, very bouldery-	Dense material	20-40	---	Weakly cemented	---	---	Moderate	Low
1078B:								
Crary, very bouldery---	Dense material	20-40	---	Weakly cemented	---	---	High	Moder
1080B:								
Becket, very bouldery--	Dense material	20-36	---	Weakly cemented	---	---	Moderate	Low
1080C:								
Becket, very bouldery--	Dense material	20-36	---	Weakly cemented	---	---	Moderate	Low
1080E:								
Becket, very bouldery--	Dense material	20-36	---	Weakly cemented	---	---	Moderate	Low
1081B:								
Skerry, very bouldery--	Dense material	20-38	---	Weakly cemented	---	---	Moderate	Moder
1081C:								
Skerry, very bouldery--	Dense material	20-38	---	Weakly cemented	---	---	Moderate	Moder
1091C:								
Lyman, very bouldery---	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
Becket, very bouldery--	Dense material	20-36	---	Weakly cemented	---	---	Moderate	Low
Tunbridge, very bouldery--------------	Lithic bedrock	20-40	---	---	---	---	Moderate	Low

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	R[illegible]
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Unc[illegible] st[illegible]
		In	In		In	In		
1091E:								
Lyman, very bouldery---	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
Becket, very bouldery--	Dense material	20-36	---	Weakly cemented	---	---	Moderate	Low
Tunbridge, very bouldery--------------	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
1118C:								
Adams------------------	---	---	---	---	---	---	Low	Low
Colton-----------------	---	---	---	---	---	---	Low	Low
1118D:								
Adams------------------	---	---	---	---	---	---	Low	Low
Colton-----------------	---	---	---	---	---	---	Low	Low
1170B:								
Henniker---------------	Dense material	20-40	---	Weakly cemented	---	---	Moderate	Low
1170C:								
Henniker---------------	Dense material	20-40	---	Weakly cemented	---	---	Moderate	Low
1170E:								
Henniker---------------	Dense material	20-40	---	Weakly cemented	---	---	Moderate	Low
1171B:								
Metacomet--------------	Dense material	20-38	---	Weakly cemented	---	---	Moderate	Moder[illegible]
1171C:								
Metacomet--------------	Dense material	20-38	---	Weakly cemented	---	---	Moderate	Moder[illegible]
1172B:								
Pillsbury, somewhat poorly drained--------	Dense material	20-36	---	Weakly cemented	---	---	High	High
1178A:								
Adirondack, very bouldery--------------	Dense material	15-38	---	Weakly cemented	---	---	High	High
1178B:								
Adirondack, very bouldery--------------	Dense material	15-38	---	Weakly cemented	---	---	High	High

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	R
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Unc st
		In	In		In	In		
1185A:								
Wonsqueak, undrained---	---	---	---	---	6-18	12-51	High	High
1190C:								
Tunbridge, very bouldery-------------	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
Lyman, very bouldery---	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
1190E:								
Tunbridge, very bouldery-------------	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
Lyman, very bouldery---	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
1190F:								
Tunbridge, very bouldery-------------	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
Lyman, very bouldery---	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
1193A:								
Wonsqueak-------------	---	---	---	---	6-18	12-51	High	High
Humaquepts, frequently flooded--------------	---	---	---	---	---	---	High	High
1291C:								
Becket, very bouldery--	Dense material	20-36	---	Weakly cemented	---	---	Moderate	Low
Lyman, very bouldery---	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
Tunbridge, very bouldery-------------	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
1291D:								
Becket, very bouldery--	Dense material	20-36	---	Weakly cemented	---	---	Moderate	Low
Lyman, very bouldery---	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
Tunbridge, very bouldery-------------	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
1292C:								
Becket, very bouldery--	Dense material	20-36	---	Weakly cemented	---	---	Moderate	Low

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	R
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Unc st
		In	In		In	In		
Tunbridge, very bouldery	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
1292E:								
Becket, very bouldery	Dense material	20-36	---	Weakly cemented	---	---	Moderate	Low
Tunbridge, very bouldery	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
1292F:								
Becket, very bouldery	Dense material	20-36	---	Weakly cemented	---	---	Moderate	Low
Tunbridge, very bouldery	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
1293C:								
Skerry, very bouldery	Dense material	20-38	---	Weakly cemented	---	---	Moderate	Moder
Tunbridge, very bouldery	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
1380C:								
Becket, very bouldery	Dense material	20-36	---	Weakly cemented	---	---	Moderate	Low
Skerry, very bouldery	Dense material	20-38	---	Weakly cemented	---	---	Moderate	Moder
1391C:								
Lyman, very bouldery	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
Tunbridge, very bouldery	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
Rock outcrop	Lithic bedrock	0-0	---	Indurated	---	---	---	-
1391D:								
Lyman, very bouldery	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
Tunbridge, very bouldery	Lithic bedrock	20-40	---	Indurated	---	---	Moderate	Low
Rock outcrop	Lithic bedrock	0-0	---	Indurated	---	---	---	-
1580B:								
Adirondack, very bouldery	Dense material	15-38	---	Weakly cemented	---	---	High	High

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	R
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Unc st
		In	In		In	In		
Skerry, very bouldery--	Dense material	20-38	---	Weakly cemented	---	---	Moderate	Moder
1591F:								
Lyman, very bouldery---	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
Berkshire, very bouldery--------------	---	---	---	---	---	---	Moderate	Low
1911C:								
Potsdam, very bouldery-	Dense material	20-40	---	Weakly cemented	---	---	Moderate	Low
Lyman, very bouldery---	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
1911E:								
Potsdam, very bouldery-	Dense material	20-40	---	Weakly cemented	---	---	Moderate	Low
Lyman, very bouldery---	Lithic bedrock	10-20	---	Indurated	---	---	Moderate	Low
1920B:								
Monadnock, very bouldery--------------	---	---	---	---	---	---	Moderate	Low
1920C:								
Monadnock, very bouldery--------------	---	---	---	---	---	---	Moderate	Low
1920E:								
Monadnock, very bouldery--------------	---	---	---	---	---	---	Moderate	Low
1941A:								
Sabattis, very bouldery	---	---	---	---	---	---	High	High
2170B:								
Henniker, very stony---	Dense material	20-40	---	Weakly cemented	---	---	Moderate	Low
2170C:								
Henniker, very stony---	Dense material	20-40	---	Weakly cemented	---	---	Moderate	Low
2170E:								
Henniker, very stony---	Dense material	20-40	---	Weakly cemented	---	---	Moderate	Low
2171B:								
Metacomet, very stony--	Dense material	20-38	---	Weakly cemented	---	---	Moderate	Moder

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	R
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Unc st
		In	In		In	In		
2171C:								
Metacomet, very stony--	Dense material	20-38	---	Weakly cemented	---	---	Moderate	Moder
2172B:								
Pillsbury, very stony--	Dense material	20-36	---	Weakly cemented	---	---	High	High
DeB:								
Deerfield--------------	---	---	---	---	---	---	Moderate	Low
GP:								
Pits, sand and gravel--	---	---	---	---	---	---	Low	-

Table 21.—Water Features

(Depths of layers are in feet. See text for definitions of terms used in this table. Estimates of the frequency
and flooding apply to the whole year rather than to individual months. Absence of an entry indicates that
is not a concern or that data were not estimated.)

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Dura
				Ft	Ft	Ft			
3A:									
Endoaquolls, frequently flooded------------------	A/D	Very high							
			January	0.0-1.5	>6.0	---	---	None	Lo
			February	0.0-1.5	>6.0	---	---	None	Lo
			March	0.0-1.5	>6.0	---	---	None	Lo
			April	0.0-1.5	>6.0	---	---	None	Lo
			May	0.0-1.5	>6.0	---	---	None	Lo
			October	0.0-1.5	>6.0	---	---	None	-
			November	0.0-1.5	>6.0	---	---	None	-
			December	0.0-1.5	>6.0	---	---	None	Lo
Hapludolls, frequently flooded------------------	B	Low							
			January	1.5-3.0	>6.0	---	---	None	Lo
			February	1.5-3.0	>6.0	---	---	None	Lo
			March	1.5-3.0	>6.0	---	---	None	Lo
			April	1.5-3.0	>6.0	---	---	None	Lo
			May	1.5-3.0	>6.0	---	---	None	Lo
			November	1.5-3.0	>6.0	---	---	None	-
			December	1.5-3.0	>6.0	---	---	None	Lo
4C:									
Udorthents, smoothed------	C	Low							
			January	1.5-3.0	>6.0	---	---	None	-
			February	1.5-3.0	>6.0	---	---	None	-
			March	1.5-3.0	>6.0	---	---	None	-
			April	1.5-3.0	>6.0	---	---	None	-
			May	1.5-3.0	>6.0	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-3.0	>6.0	---	---	None	-
			December	1.5-3.0	>6.0	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
5C:									
Udorthents, refuse substratum	B	---							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
6A:									
Saprists, frequently ponded	A/D	Negligible							
			January	0.0	>6.0	0.0-1.5	Very long	Frequent	-
			February	0.0	>6.0	0.0-1.5	Very long	Frequent	-
			March	0.0	>6.0	0.0-1.5	Very long	Frequent	-
			April	0.0	>6.0	0.0-1.5	Very long	Frequent	-
			May	0.0	>6.0	0.0-1.5	Very long	Frequent	-
			June	0.0	>6.0	0.0-1.5	Very long	Frequent	-
			July	0.0-1.0	>6.0	0.0-1.5	Very long	Frequent	-
			August	0.0-1.0	>6.0	0.0-1.5	Very long	Frequent	-
			September	0.0-1.0	>6.0	0.0-1.5	Very long	Frequent	-
			October	0.0	>6.0	0.0-1.5	Very long	Frequent	-
			November	0.0	>6.0	0.0-1.5	Very long	Frequent	-
			December	0.0	>6.0	0.0-1.5	Very long	Frequent	-
Aquents, frequently ponded	C/D	Negligible							
			January	0.0	>6.0	0.0-1.5	Very long	Frequent	-
			February	0.0	>6.0	0.0-1.5	Very long	Frequent	-
			March	0.0	>6.0	0.0-1.5	Very long	Frequent	-
			April	0.0	>6.0	0.0-1.5	Very long	Frequent	-
			May	0.0	>6.0	0.0-1.5	Very long	Frequent	-
			June	0.0	>6.0	0.0-1.5	Very long	Frequent	-
			July	0.0	>6.0	0.0-1.5	Very long	Frequent	-
			August	0.0-0.3	>6.0	0.0-1.5	Very long	Frequent	-
			September	0.0	>6.0	0.0-1.5	Very long	Frequent	-
			October	0.0	>6.0	0.0-1.5	Very long	Frequent	-
			November	0.0	>6.0	0.0-1.5	Very long	Frequent	-
			December	0.0	>6.0	0.0-1.5	Very long	Frequent	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
7B:									
Endoaquents, smoothed-----	B/D	Very high							
			January	0.5-1.5	>6.0	---	---	None	Very
			February	0.5-1.5	>6.0	---	---	None	Very
			March	0.5-1.5	>6.0	---	---	None	Very
			April	0.5-1.5	>6.0	---	---	None	Very
			May	0.5-2.5	>6.0	---	---	None	-
			October	0.5-2.5	>6.0	---	---	None	-
			November	0.5-1.5	>6.0	---	---	None	-
			December	0.5-1.5	>6.0	---	---	None	Very
10A:									
Pleasant Lake-------------	A/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			February	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			March	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			April	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			May	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			June	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			July	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			August	---	---	---	---	---	-
			September	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			October	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			November	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			December	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
Burnt Vly-----------------	A/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			February	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			March	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			April	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			May	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			June	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			July	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			August	---	---	---	---	---	-
			September	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			October	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			November	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			December	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
11B:									
Hinckley------------------	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Windsor-------------------	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
11C:									
Hinckley------------------	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Windsor------------------	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
11D:									
Hinckley-----------------	A	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Windsor------------------	A	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
11E:									
Hinckley------------------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
Windsor-------------------	A	Medium							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---
13F:									
Lansing-------------------	B	High							
			January	---	---	---	---	None	---
			February	---	---	---	---	None	---
			March	---	---	---	---	None	---
			April	---	---	---	---	None	---
			May	---	---	---	---	None	---
			June	---	---	---	---	None	---
			July	---	---	---	---	None	---
			August	---	---	---	---	None	---
			September	---	---	---	---	None	---
			October	---	---	---	---	None	---
			November	---	---	---	---	None	---
			December	---	---	---	---	None	---

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			Durat
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	
				Ft	Ft	Ft			
Mohawk---------------------	B	High							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
16E:									
Broadalbin-----------------	C	High							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
17D:									
Hollis---------------------	D	Very high							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
Rock outcrop---------------	---	---							
			Jan-Dec	---	---	---	---	---	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
18C:									
Chatfield	B	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Hollis	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
18D:									
Chatfield	B	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
Hollis-------------------	D	Very high							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
21B:									
Galway-------------------	C	Very high							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
21C:									
Galway-------------------	C	Low							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			Dura
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	
				Ft	Ft	Ft			
22B:									
Georgia-------------------	B/D	Medium							
			January	1.5-2.5	3.3-5.0	---	---	None	-
			February	1.5-2.5	3.3-5.0	---	---	None	-
			March	1.5-2.5	3.3-5.0	---	---	None	-
			April	1.5-2.5	3.3-5.0	---	---	None	-
			May	1.5-2.5	3.3-5.0	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-2.5	3.3-5.0	---	---	None	-
			December	1.5-2.5	3.3-5.0	---	---	None	-
24B:									
Farmington----------------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
24C:									
Farmington----------------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
25A:									
Wonsqueak, ponded	A/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Very long	Frequent	--
			February	0.0	>6.0	0.0-1.0	Very long	Frequent	--
			March	0.0	>6.0	0.0-1.0	Very long	Frequent	--
			April	0.0	>6.0	0.0-1.0	Very long	Frequent	--
			May	0.0	>6.0	0.0-1.0	Very long	Frequent	--
			June	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	--
			July	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	--
			August	---	---	---	---	---	--
			September	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	--
			October	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	--
			November	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	--
			December	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	--
Colton	A	Low							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
Rumney	B/D	Very high							
			January	0.0-1.5	>6.0	---	---	None	Bri
			February	0.0-1.5	>6.0	---	---	None	Bri
			March	0.0-1.5	>6.0	---	---	None	Bri
			April	0.0-1.5	>6.0	---	---	None	Bri
			May	0.0-1.5	>6.0	---	---	None	Bri
			June	0.0-1.5	>6.0	---	---	None	--
			September	0.0-1.5	>6.0	---	---	None	--
			October	0.0-1.5	>6.0	---	---	None	Bri
			November	0.0-1.5	>6.0	---	---	None	Bri
			December	0.0-1.5	>6.0	---	---	None	Bri

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
25D:									
Farmington, very rocky----	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
32B:									
Mohawk--------------------	B	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
32C:									
Mohawk--------------------	B	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
32D:									
Mohawk--------------------	B	High							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
33B:									
Angola--------------------	D	Very high							
			January	0.5-2.7	1.7-3.3	---	---	None	--
			February	0.5-2.7	1.7-3.3	---	---	None	--
			March	0.5-2.7	1.7-3.3	---	---	None	--
			April	0.5-2.7	1.7-3.3	---	---	None	--
			May	0.5-2.7	1.7-3.3	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	0.5-2.7	1.7-3.3	---	---	None	--
			December	0.5-2.7	1.7-3.3	---	---	None	--
34A:									
Manheim-------------------	C/D	Very high							
			January	0.8-1.5	>6.0	---	---	None	--
			February	0.8-1.5	>6.0	---	---	None	--
			March	0.8-1.5	>6.0	---	---	None	--
			April	0.8-1.5	>6.0	---	---	None	--
			May	0.8-1.5	>6.0	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	0.8-1.5	>6.0	---	---	None	--
			December	0.8-1.5	>6.0	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
34B:									
Manheim-------------------	C/D	Very high							
			January	0.8-1.5	>6.0	---	---	None	-
			February	0.8-1.5	>6.0	---	---	None	-
			March	0.8-1.5	>6.0	---	---	None	-
			April	0.8-1.5	>6.0	---	---	None	-
			May	0.8-1.5	>6.0	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	0.8-1.5	>6.0	---	---	None	-
			December	0.8-1.5	>6.0	---	---	None	-
42B:									
Lansing-------------------	B	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
42C:									
Lansing-------------------	B	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
42D:									
Lansing-------------------	B	High							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
44A:									
Appleton------------------	C/D	Very high							
			January	0.5-1.5	>6.0	---	---	None	--
			February	0.5-1.5	>6.0	---	---	None	--
			March	0.5-1.5	>6.0	---	---	None	--
			April	0.5-1.5	>6.0	---	---	None	--
			May	0.5-1.5	>6.0	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	0.5-1.5	>6.0	---	---	None	--
			December	0.5-1.5	>6.0	---	---	None	--
44B:									
Appleton------------------	C/D	Very high							
			January	0.5-1.5	>6.0	---	---	None	--
			February	0.5-1.5	>6.0	---	---	None	--
			March	0.5-1.5	>6.0	---	---	None	--
			April	0.5-1.5	>6.0	---	---	None	--
			May	0.5-1.5	>6.0	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	0.5-1.5	>6.0	---	---	None	--
			December	0.5-1.5	>6.0	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
47A:									
Ilion	C/D	Very high							
			January	0.0-1.0	>6.0	---	---	None	--
			February	0.0-1.0	>6.0	---	---	None	--
			March	0.0-1.0	>6.0	---	---	None	--
			April	0.0-1.0	>6.0	---	---	None	--
			May	0.0-1.0	>6.0	---	---	None	--
			June	0.0-1.0	>6.0	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	0.0-1.0	>6.0	---	---	None	--
			November	0.0-1.0	>6.0	---	---	None	--
			December	0.0-1.0	>6.0	---	---	None	--
47B:									
Ilion	C/D	Very high							
			January	0.0-1.0	>6.0	---	---	None	--
			February	0.0-1.0	>6.0	---	---	None	--
			March	0.0-1.0	>6.0	---	---	None	--
			April	0.0-1.0	>6.0	---	---	None	--
			May	0.0-1.0	>6.0	---	---	None	--
			June	0.0-1.0	>6.0	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	0.0-1.0	>6.0	---	---	None	--
			November	0.0-1.0	>6.0	---	---	None	--
			December	0.0-1.0	>6.0	---	---	None	--
49A:									
Fonda	C/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	--
			February	0.0	>6.0	0.0-1.0	Long	Frequent	--
			March	0.0	>6.0	0.0-1.0	Long	Frequent	--
			April	0.0	>6.0	0.0-1.0	Long	Frequent	--
			May	0.0-0.5	>6.0	0.0-1.0	Long	Frequent	--
			June	0.0-1.0	>6.0	---	---	---	--
			July	---	---	---	---	---	--
			August	---	---	---	---	---	--
			September	---	---	---	---	---	--
			October	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	--
			November	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	--
			December	0.0	>6.0	0.0-1.0	Long	Frequent	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
72B:									
Broadalbin, well drained--	C	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Broadalbin, moderately well drained-------------	D	Very high							
			January	1.5-2.7	1.5-3.0	---	---	None	-
			February	1.5-2.7	1.5-3.0	---	---	None	-
			March	1.5-2.7	1.5-3.0	---	---	None	-
			April	1.5-2.7	1.5-3.0	---	---	None	-
			May	1.5-2.7	1.5-3.0	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-2.7	1.5-3.0	---	---	None	-
			December	1.5-2.7	1.5-3.0	---	---	None	-
72C:									
Broadalbin----------------	C	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
72D:									
Broadalbin----------------	C	Very high							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
74A:									
Mosherville---------------	D	Very high							
			January	0.5-1.5	1.1-2.5	---	---	None	--
			February	0.5-1.5	1.1-2.5	---	---	None	--
			March	0.5-1.5	1.1-2.5	---	---	None	--
			April	0.5-1.5	1.1-2.5	---	---	None	--
			May	0.5-1.5	1.1-2.5	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	0.5-1.5	1.1-2.5	---	---	None	--
			November	0.5-1.5	1.1-2.5	---	---	None	--
			December	0.5-1.5	1.1-2.5	---	---	None	--
74B:									
Mosherville---------------	D	Very high							
			January	0.5-1.5	1.1-2.5	---	---	None	--
			February	0.5-1.5	1.1-2.5	---	---	None	--
			March	0.5-1.5	1.1-2.5	---	---	None	--
			April	0.5-1.5	1.1-2.5	---	---	None	--
			May	0.5-1.5	1.1-2.5	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	0.5-1.5	1.1-2.5	---	---	None	--
			November	0.5-1.5	1.1-2.5	---	---	None	--
			December	0.5-1.5	1.1-2.5	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
77A:									
Sun-----------------------	C/D	Negligible							
			January	0.0-1.0	1.7-3.3	---	---	None	-
			February	0.0-1.0	1.7-3.3	---	---	None	-
			March	0.0-1.0	1.7-3.3	---	---	None	-
			April	0.0-1.0	1.7-3.3	---	---	None	-
			May	0.0-1.0	1.7-3.3	---	---	None	-
			June	0.0-1.5	1.7-3.3	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	0.0-1.5	1.7-3.3	---	---	None	-
			November	0.0-1.0	1.7-3.3	---	---	None	-
			December	0.0-1.0	1.7-3.3	---	---	None	-
81B:									
Charlton------------------	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
81C:									
Charlton------------------	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table Upper limit	Water table Lower limit	Ponding Surface water depth	Ponding Duration	Ponding Frequency	Dura
				Ft	Ft	Ft			
81D:									
Charlton------------------	A	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
89A:									
Whitman-------------------	D	Negligible							
			January	0.0-1.0	1.0-1.7	0.0-1.0	Long	Frequent	-
			February	0.0-1.0	1.0-1.7	0.0-1.0	Long	Frequent	-
			March	0.0-1.0	1.0-1.7	0.0-1.0	Long	Frequent	-
			April	0.0-1.0	1.0-1.7	0.0-1.0	Long	Frequent	-
			May	0.0-1.0	1.0-1.7	0.0-1.0	Long	Frequent	-
			June	0.0-1.0	1.0-1.7	0.0-1.0	Long	Frequent	-
			July	0.0-1.0	1.0-1.7	0.0-1.0	Long	Frequent	-
			August	---	---	---	---	---	-
			September	---	---	---	---	---	-
			October	0.0-1.0	1.0-1.7	0.0-1.0	Long	Frequent	-
			November	0.0-1.0	1.0-1.7	0.0-1.0	Long	Frequent	-
			December	0.0-1.0	1.0-1.7	0.0-1.0	Long	Frequent	-
90B:									
Palatine------------------	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
90C:									
Palatine------------------	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
90D:									
Palatine------------------	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
94B:									
Paxton--------------------	C	High							
			January	---	---	---	---	None	-
			February	2.5-3.3	2.5-3.3	---	---	None	-
			March	2.5-3.3	2.5-3.3	---	---	None	-
			April	2.5-3.3	2.5-3.3	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
94C:									
Paxton-------------------	C	High							
			January	---	---	---	---	None	-
			February	2.5-3.3	2.5-3.3	---	---	None	-
			March	2.5-3.3	2.5-3.3	---	---	None	-
			April	2.5-3.3	2.5-3.3	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
			December	---	---	---	---	None	-
94D:									
Paxton-------------------	C	Very high							
			January	---	---	---	---	None	-
			February	2.5-3.3	2.5-3.3	---	---	None	-
			March	2.5-3.3	2.5-3.3	---	---	None	-
			April	2.5-3.3	2.5-3.3	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
95B:									
Woodbridge---------------	C/D	High							
			January	1.5-2.5	1.7-3.3	---	---	None	-
			February	1.5-2.5	1.7-3.3	---	---	None	-
			March	1.5-2.5	1.7-3.3	---	---	None	-
			April	1.5-2.5	1.7-3.3	---	---	None	-
			May	1.5-2.5	1.7-3.3	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-2.5	1.7-3.3	---	---	None	-
			December	1.5-2.5	1.7-3.3	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
96B:									
Ridgebury-----------------	D	Low							
			January	0.8-1.5	1.7-3.0	---	---	None	-
			February	0.8-1.5	1.7-3.0	---	---	None	-
			March	0.8-1.5	1.7-3.0	---	---	None	-
			April	0.8-1.5	1.7-3.0	---	---	None	-
			May	0.8-1.5	1.7-3.0	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	0.8-1.5	1.7-3.0	---	---	None	-
			November	0.8-1.5	1.7-3.0	---	---	None	-
			December	0.8-1.5	1.7-3.0	---	---	None	-
99A:									
Timakwa, undrained--------	A/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			February	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			March	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			April	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			May	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			June	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			July	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			August	---	---	---	---	---	-
			September	0.0-1.5	>6.0	0.0-1.0	Very long	Frequent	-
			October	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			November	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			December	0.0	>6.0	0.0-1.0	Very long	Frequent	-
109A:									
Catden, undrained---------	A/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			February	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			March	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			April	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			May	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			June	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			July	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			August	---	---	---	---	---	-
			September	0.0-1.5	>6.0	0.0-1.0	Very long	Frequent	-
			October	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			November	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			December	0.0	>6.0	0.0-1.0	Very long	Frequent	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
112A:									
Scio	B/D	Low							
			January	1.5-3.0	>6.0	---	---	None	--
			February	1.5-3.0	>6.0	---	---	None	--
			March	1.5-3.0	>6.0	---	---	None	--
			April	1.5-3.0	>6.0	---	---	None	--
			May	1.5-3.0	>6.0	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	1.5-3.0	>6.0	---	---	None	--
			December	1.5-3.0	>6.0	---	---	None	--
Urban land	---	Very high							
			Jan-Dec	---	---	---	---	---	--
114B:									
Windsor	A	Low							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
Urban land	---	Very high							
			Jan-Dec	---	---	---	---	---	--
114C:									
Windsor	A	Low							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
Urban land	---	Very high							
			Jan-Dec	---	---	---	---	---	--
114D:									
Windsor	A	Low							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
Urban land	---	Very high							
			Jan-Dec	---	---	---	---	---	--
115B:									
Udipsamments, smoothed	A	Negligible							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
116:									
Urban land	---	Very high							
			Jan-Dec	---	---	---	---	---	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			Dura
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	
				Ft	Ft	Ft			
117B:									
Broadalbin, moderately well drained-------------	D	High							
			January	1.5-2.7	1.5-3.0	---	---	None	-
			February	1.5-2.7	1.5-3.0	---	---	None	-
			March	1.5-2.7	1.5-3.0	---	---	None	-
			April	1.5-2.7	1.5-3.0	---	---	None	-
			May	1.5-2.7	1.5-3.0	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-2.7	1.5-3.0	---	---	None	-
			December	1.5-2.7	1.5-3.0	---	---	None	-
Urban land----------------	---	Very high							
			Jan-Dec	---	---	---	---	---	-
117C:									
Broadalbin, well drained--	C	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Urban land----------------	---	Very high							
			Jan-Dec	---	---	---	---	---	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
130B:									
Hudson--------------------	C/D	Medium							
			January	1.5-3.0	5.0-5.0	---	---	None	--
			February	1.5-3.0	5.0-5.0	---	---	None	--
			March	1.5-3.0	5.0-5.0	---	---	None	--
			April	1.5-3.0	5.0-5.0	---	---	None	--
			May	1.5-3.0	5.0-5.0	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	1.5-3.0	5.0-5.0	---	---	None	--
			December	1.5-3.0	5.0-5.0	---	---	None	--
130C:									
Hudson--------------------	C/D	High							
			January	1.5-3.0	5.0-5.0	---	---	None	--
			February	1.5-3.0	5.0-5.0	---	---	None	--
			March	1.5-3.0	5.0-5.0	---	---	None	--
			April	1.5-3.0	5.0-5.0	---	---	None	--
			May	1.5-3.0	5.0-5.0	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	1.5-3.0	5.0-5.0	---	---	None	--
			December	1.5-3.0	5.0-5.0	---	---	None	--
134A:									
Rhinebeck-----------------	C/D	Very high							
			January	0.8-1.5	>6.0	---	---	None	--
			February	0.8-1.5	>6.0	---	---	None	--
			March	0.8-1.5	>6.0	---	---	None	--
			April	0.8-1.5	>6.0	---	---	None	--
			May	0.8-1.5	>6.0	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	0.8-1.5	>6.0	---	---	None	--
			December	0.8-1.5	>6.0	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
134B:									
Rhinebeck	C/D	Very high							
			January	0.8-1.5	>6.0	---	---	None	--
			February	0.8-1.5	>6.0	---	---	None	--
			March	0.8-1.5	>6.0	---	---	None	--
			April	0.8-1.5	>6.0	---	---	None	--
			May	0.8-1.5	>6.0	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	0.8-1.5	>6.0	---	---	None	--
			December	0.8-1.5	>6.0	---	---	None	--
135A:									
Churchville	C/D	Very high							
			January	0.8-1.5	>6.0	---	---	None	--
			February	0.8-1.5	>6.0	---	---	None	--
			March	0.8-1.5	>6.0	---	---	None	--
			April	0.8-1.5	>6.0	---	---	None	--
			May	0.8-1.5	>6.0	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	0.8-1.5	>6.0	---	---	None	--
			December	0.8-1.5	>6.0	---	---	None	--
135B:									
Churchville	C/D	Very high							
			January	0.8-1.5	>6.0	---	---	None	--
			February	0.8-1.5	>6.0	---	---	None	--
			March	0.8-1.5	>6.0	---	---	None	--
			April	0.8-1.5	>6.0	---	---	None	--
			May	0.8-1.5	>6.0	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	0.8-1.5	>6.0	---	---	None	--
			December	0.8-1.5	>6.0	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
137A:									
Madalin	C/D	Negligible							
			January	0.0-1.0	>6.0	---	---	None	-
			February	0.0-1.0	>6.0	---	---	None	-
			March	0.0-1.0	>6.0	---	---	None	-
			April	0.0-1.0	>6.0	---	---	None	-
			May	0.0-1.0	>6.0	---	---	None	-
			June	0.0-1.0	>6.0	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	0.0-1.0	>6.0	---	---	None	-
			November	0.0-1.0	>6.0	---	---	None	-
			December	0.0-1.0	>6.0	---	---	None	-
151B:									
Unadilla	B	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
152A:									
Scio	B/D	Low							
			January	1.5-3.0	>6.0	---	---	None	-
			February	1.5-3.0	>6.0	---	---	None	-
			March	1.5-3.0	>6.0	---	---	None	-
			April	1.5-3.0	>6.0	---	---	None	-
			May	1.5-3.0	>6.0	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-3.0	>6.0	---	---	None	-
			December	1.5-3.0	>6.0	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
152B:									
Scio----------------------	B/D	Low							
			January	1.5-3.0	>6.0	---	---	None	--
			February	1.5-3.0	>6.0	---	---	None	--
			March	1.5-3.0	>6.0	---	---	None	--
			April	1.5-3.0	>6.0	---	---	None	--
			May	1.5-3.0	>6.0	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	1.5-3.0	>6.0	---	---	None	--
			December	1.5-3.0	>6.0	---	---	None	--
154A:									
Tonawanda-----------------	C/D	Very high							
			January	0.8-1.5	>6.0	---	---	None	--
			February	0.8-1.5	>6.0	---	---	None	--
			March	0.8-1.5	>6.0	---	---	None	--
			April	0.8-1.5	>6.0	---	---	None	--
			May	0.8-1.5	>6.0	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	0.8-1.5	>6.0	---	---	None	--
			December	0.8-1.5	>6.0	---	---	None	--
154B:									
Tonawanda-----------------	C/D	Very high							
			January	0.8-1.5	>6.0	---	---	None	--
			February	0.8-1.5	>6.0	---	---	None	--
			March	0.8-1.5	>6.0	---	---	None	--
			April	0.8-1.5	>6.0	---	---	None	--
			May	0.8-1.5	>6.0	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	0.8-1.5	>6.0	---	---	None	--
			December	0.8-1.5	>6.0	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
157A:									
Birdsall------------------	C/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	-
			February	0.0	>6.0	0.0-1.0	Long	Frequent	-
			March	0.0	>6.0	0.0-1.0	Long	Frequent	-
			April	0.0	>6.0	0.0-1.0	Long	Frequent	-
			May	0.0	>6.0	0.0-1.0	Long	Frequent	-
			June	0.0-0.8	>6.0	0.0-1.0	Long	Frequent	-
			July	---	---	---	---	---	-
			August	---	---	---	---	---	-
			September	---	---	---	---	---	-
			October	0.0-0.8	>6.0	---	---	---	-
			November	0.0	>6.0	0.0-1.0	Long	Frequent	-
			December	0.0	>6.0	0.0-1.0	Long	Frequent	-
160A:									
Agawam--------------------	A	Very low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
160B:									
Agawam--------------------	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
162B:									
Ninigret------------------	B/D	Very low							
			January	1.5-3.0	5.2-5.2	---	---	None	-
			February	1.5-3.0	5.2-5.2	---	---	None	-
			March	1.5-3.0	5.2-5.2	---	---	None	-
			April	1.5-3.0	5.2-5.2	---	---	None	-
			May	1.5-3.0	5.2-5.2	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-3.0	5.2-5.2	---	---	None	-
			December	1.5-3.0	5.2-5.2	---	---	None	-
165A:									
Stafford------------------	A/D	Very high							
			January	0.8-1.5	5.4-5.4	---	---	None	-
			February	0.8-1.5	5.4-5.4	---	---	None	-
			March	0.8-1.5	5.4-5.4	---	---	None	-
			April	0.8-1.5	5.4-5.4	---	---	None	-
			May	0.8-1.5	5.4-5.4	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	0.8-1.5	5.4-5.4	---	---	None	-
			December	0.8-1.5	5.4-5.4	---	---	None	-
170B:									
Windsor-------------------	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
170C:									
Windsor-------------------	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
170D:									
Windsor-------------------	A	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
179A:									
Scarboro------------------	A/D	Negligible							
			January	0.0	5.3-5.3	0.0-1.0	Long	Frequent	-
			February	0.0	5.3-5.3	0.0-1.0	Long	Frequent	-
			March	0.0	5.3-5.3	0.0-1.0	Long	Frequent	-
			April	0.0	5.3-5.3	0.0-1.0	Long	Frequent	-
			May	0.0	5.3-5.3	0.0-1.0	Long	Frequent	-
			June	0.0-2.0	5.3-5.3	0.0-1.0	Long	Frequent	-
			July	---	---	---	---	---	-
			August	---	---	---	---	---	-
			September	0.0-2.0	5.3-5.3	0.0-1.0	Long	Frequent	-
			October	0.0	5.3-5.3	0.0-1.0	Long	Frequent	-
			November	0.0	5.3-5.3	0.0-1.0	Long	Frequent	-
			December	0.0	5.3-5.3	0.0-1.0	Long	Frequent	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
182A:									
Elmridge------------------	C/D	Medium							
			January	1.5-2.5	1.5-3.3	---	---	None	-
			February	1.5-2.5	1.5-3.3	---	---	None	-
			March	1.5-2.5	5.0-5.0	---	---	None	-
			April	1.5-2.5	5.0-5.0	---	---	None	-
			May	1.5-2.5	5.0-5.0	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-2.5	1.5-3.3	---	---	None	-
			December	1.5-2.5	1.5-3.3	---	---	None	-
182B:									
Elmridge------------------	C/D	High							
			January	1.5-2.5	1.5-3.3	---	---	None	-
			February	1.5-2.5	1.5-3.3	---	---	None	-
			March	1.5-2.5	5.0-5.0	---	---	None	-
			April	1.5-2.5	5.0-5.0	---	---	None	-
			May	1.5-2.5	5.0-5.0	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-2.5	1.5-3.3	---	---	None	-
			December	1.5-2.5	1.5-3.3	---	---	None	-
187A:									
Aeric Epiaquepts, somewhat poorly drained--	C/D	Very high							
			January	0.8-1.5	1.5-3.3	---	---	None	-
			February	0.8-1.5	1.5-3.3	---	---	None	-
			March	0.8-1.5	1.5-3.3	---	---	None	-
			April	0.8-1.5	1.5-3.3	---	---	None	-
			May	0.8-1.5	1.5-3.3	---	---	None	-
			June	0.8-1.5	1.5-3.3	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	0.8-1.5	1.5-3.3	---	---	None	-
			December	0.8-1.5	1.5-3.3	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Aeric Epiaquepts, poorly drained----------------	C/D	---							
			January	0.0-1.5	1.5-3.3	---	---	None	-
			February	0.0-1.5	1.5-3.3	---	---	None	-
			March	0.0-1.5	1.5-3.3	---	---	None	-
			April	0.0-1.5	1.5-3.3	---	---	None	-
			May	0.0-1.5	1.5-3.3	---	---	None	-
			June	0.0-1.5	1.5-3.3	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	0.0-1.5	1.5-3.3	---	---	None	-
			November	0.0-1.5	1.5-3.3	---	---	None	-
			December	0.0-1.5	1.5-3.3	---	---	None	-
189A: Cheektowaga---------------	D	Negligible							
			January	0.0-0.5	1.7-3.3	0.0-1.0	Long	Frequent	-
			February	0.0-0.5	1.7-3.3	0.0-1.0	Long	Frequent	-
			March	0.0-0.5	1.7-3.3	0.0-1.0	Long	Frequent	-
			April	0.0-0.5	1.7-3.3	0.0-1.0	Long	Frequent	-
			May	0.0-1.0	1.7-3.3	0.0-1.0	Long	Frequent	-
			June	0.0-1.5	1.7-3.3	0.0-1.0	Long	Frequent	-
			July	---	---	---	---	---	-
			August	---	---	---	---	---	-
			September	---	---	---	---	---	-
			October	0.0-1.5	1.7-3.3	0.0-1.0	Long	Frequent	-
			November	0.0-1.0	1.7-3.3	0.0-1.0	Long	Frequent	-
			December	0.0-1.0	1.7-3.3	0.0-1.0	Long	Frequent	-
197A: Fredon, somewhat poorly drained----------------	B/D	Very high							
			January	0.8-1.5	>6.0	---	---	None	-
			February	0.8-1.5	>6.0	---	---	None	-
			March	0.8-1.5	>6.0	---	---	None	-
			April	0.8-1.5	>6.0	---	---	None	-
			May	0.8-1.5	>6.0	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	0.8-1.5	>6.0	---	---	None	-
			December	0.8-1.5	>6.0	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
201B:									
Alton	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
201C:									
Alton	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
201D:									
Alton	A	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
210A:									
Merrimac------------------	A	Very low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
210B:									
Merrimac------------------	A	Very low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
210C:									
Merrimac------------------	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
210D:									
Merrimac	A	Medium							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
211A:									
Burnt Vly	A/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Very long	Frequent	--
			February	0.0	>6.0	0.0-1.0	Very long	Frequent	--
			March	0.0	>6.0	0.0-1.0	Very long	Frequent	--
			April	0.0	>6.0	0.0-1.0	Very long	Frequent	--
			May	0.0	>6.0	0.0-1.0	Very long	Frequent	--
			June	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	--
			July	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	--
			August	---	---	---	---	---	--
			September	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	--
			October	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	--
			November	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	--
			December	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	--
Humaquepts	B/D	Very low							
			January	0.0	>6.0	---	---	None	Lon
			February	0.0	>6.0	---	---	None	Lon
			March	0.0	>6.0	---	---	None	Lon
			April	0.0	>6.0	---	---	None	Lon
			May	0.0-1.0	>6.0	---	---	None	Lon
			June	0.0-1.5	>6.0	---	---	None	Lon
			September	0.0-1.5	>6.0	---	---	None	Lon
			October	0.0-1.5	>6.0	---	---	None	Lon
			November	0.0-1.5	>6.0	---	---	None	Lon
			December	0.0-1.0	>6.0	---	---	None	Lon

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Dura
				Ft	Ft	Ft			
Pleasant Lake-------------	A/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			February	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			March	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			April	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			May	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			June	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			July	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			August	---	---	---	---	---	-
			September	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			October	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			November	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			December	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
212A:									
Hinckley------------------	A	Very low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
212B:									
Hinckley------------------	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
212C:									
Hinckley	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
232A:									
Teel	B/D	Low							
			January	1.5-3.0	5.2-5.2	---	---	None	Bri
			February	1.5-3.0	5.2-5.2	---	---	None	Bri
			March	1.5-3.0	5.2-5.2	---	---	None	Bri
			April	1.5-3.0	5.2-5.2	---	---	None	Bri
			May	1.5-3.0	5.2-5.2	---	---	None	Bri
			November	1.5-3.0	5.2-5.2	---	---	None	Bri
			December	1.5-3.0	5.2-5.2	---	---	None	Bri
244A:									
Darien	C/D	Very high							
			January	0.8-1.5	>6.0	---	---	None	-
			February	0.8-1.5	>6.0	---	---	None	-
			March	0.8-1.5	>6.0	---	---	None	-
			April	0.8-1.5	>6.0	---	---	None	-
			May	0.8-1.5	>6.0	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	0.8-1.5	>6.0	---	---	None	-
			December	0.8-1.5	>6.0	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
244B:									
Darien--------------------	C/D	Very high							
			January	0.8-1.5	>6.0	---	---	None	--
			February	0.8-1.5	>6.0	---	---	None	--
			March	0.8-1.5	>6.0	---	---	None	--
			April	0.8-1.5	>6.0	---	---	None	--
			May	0.8-1.5	>6.0	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	0.8-1.5	>6.0	---	---	None	--
			December	0.8-1.5	>6.0	---	---	None	--
363A:									
Adams---------------------	A	Very low							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
363B:									
Adams---------------------	A	Low							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Durat
				Ft	Ft	Ft			
363D:									
Adams	A	Medium							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
363F:									
Adams	A	Medium							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
365A:									
Naumburg	A/D	Very high							
			January	0.8-1.5	>6.0	---	---	None	--
			February	0.8-1.5	>6.0	---	---	None	--
			March	0.8-1.5	>6.0	---	---	None	--
			April	0.8-1.5	>6.0	---	---	None	--
			May	0.8-1.5	>6.0	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	0.8-1.5	>6.0	---	---	None	--
			December	0.8-1.5	>6.0	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Croghan------------------	A/D	Very low							
			January	1.5-3.0	5.0-5.0	---	---	None	-
			February	1.5-3.0	5.0-5.0	---	---	None	-
			March	1.5-3.0	5.0-5.0	---	---	None	-
			April	1.5-3.0	5.0-5.0	---	---	None	-
			May	1.5-3.0	5.0-5.0	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-3.0	5.0-5.0	---	---	None	-
			December	1.5-3.0	5.0-5.0	---	---	None	-
368A:									
Searsport----------------	A/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	-
			February	0.0	>6.0	0.0-1.0	Long	Frequent	-
			March	0.0	>6.0	0.0-1.0	Long	Frequent	-
			April	0.0	>6.0	0.0-1.0	Long	Frequent	-
			May	0.0	>6.0	0.0-1.0	Long	Frequent	-
			June	0.0	>6.0	0.0-1.0	Long	Frequent	-
			July	0.0-1.5	>6.0	---	---	---	-
			August	---	---	---	---	---	-
			September	0.0-1.5	>6.0	---	---	---	-
			October	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	-
			November	0.0	>6.0	0.0-1.0	Long	Frequent	-
			December	0.0	>6.0	0.0-1.0	Long	Frequent	-
Wonsqueak----------------	A/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			February	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			March	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			April	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			May	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			June	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			July	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			August	---	---	---	---	---	-
			September	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			October	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			November	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			December	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Dura
				Ft	Ft	Ft			
Naumburg------------------	A/D	Very high							
			January	0.8-1.5	>6.0	---	---	None	-
			February	0.8-1.5	>6.0	---	---	None	-
			March	0.8-1.5	>6.0	---	---	None	-
			April	0.8-1.5	>6.0	---	---	None	-
			May	0.8-1.5	>6.0	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	0.8-1.5	>6.0	---	---	None	-
			December	0.8-1.5	>6.0	---	---	None	-
375A:									
Colton--------------------	A	Very low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Adams---------------------	A	Very low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
375C:									
Colton--------------------	A	Low							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
Adams---------------------	A	Low							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
375D:									
Colton--------------------	A	Medium							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Adams---------------------	A	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
650C:									
Monadnock, very bouldery--	B	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Adams---------------------	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Colton-------------------	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
650D:									
Monadnock, very bouldery--	B	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Adams--------------------	A	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Colton--------------------	A	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
651C:									
Monadnock, very bouldery--	B	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Tunbridge, rolling, very bouldery-----------------	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Sabattis, very bouldery---	C/D	Very high							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	-
			February	0.0	>6.0	0.0-1.0	Long	Frequent	-
			March	0.0	>6.0	0.0-1.0	Long	Frequent	-
			April	0.0	>6.0	0.0-1.0	Long	Frequent	-
			May	0.0-0.5	>6.0	0.0-1.0	Long	Frequent	-
			June	0.0-1.0	>6.0	---	---	---	-
			July	---	---	---	---	---	-
			August	---	---	---	---	---	-
			September	---	---	---	---	---	-
			October	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	-
			November	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	-
			December	0.0	>6.0	0.0-1.0	Long	Frequent	-
651D:									
Monadnock, very bouldery--	B	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Tunbridge, hilly, very bouldery-----------------	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
651F:									
Monadnock, very bouldery--	B	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
653C:									
Monadnock, very bouldery--	B	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
653D:									
Monadnock, very bouldery--	B	High							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
708B:									
Adirondack, very bouldery-	C/D	Very high							
			January	0.5-1.5	1.7-3.2	---	---	None	--
			February	0.5-1.5	1.7-3.2	---	---	None	--
			March	0.5-1.5	1.7-3.2	---	---	None	--
			April	0.5-1.5	1.7-3.2	---	---	None	--
			May	0.5-1.5	1.7-3.2	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	0.5-1.5	1.7-3.2	---	---	None	--
			November	0.5-1.5	1.7-3.2	---	---	None	--
			December	0.5-1.5	1.7-3.2	---	---	None	--
Sabattis, very bouldery---	C/D	Very high							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	--
			February	0.0	>6.0	0.0-1.0	Long	Frequent	--
			March	0.0	>6.0	0.0-1.0	Long	Frequent	--
			April	0.0	>6.0	0.0-1.0	Long	Frequent	--
			May	0.0-0.5	>6.0	0.0-1.0	Long	Frequent	--
			June	0.0-1.0	>6.0	---	---	---	--
			July	---	---	---	---	---	--
			August	---	---	---	---	---	--
			September	---	---	---	---	---	--
			October	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	--
			November	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	--
			December	0.0	>6.0	0.0-1.0	Long	Frequent	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			Dura
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	
				Ft	Ft	Ft			
Tughill, very bouldery----	C/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	-
			February	0.0	>6.0	0.0-1.0	Long	Frequent	-
			March	0.0	>6.0	0.0-1.0	Long	Frequent	-
			April	0.0	>6.0	0.0-1.0	Long	Frequent	-
			May	0.0-0.5	>6.0	0.0-1.0	Long	Frequent	-
			June	0.0-1.0	>6.0	---	---	---	-
			July	---	---	---	---	---	-
			August	---	---	---	---	---	-
			September	---	---	---	---	---	-
			October	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	-
			November	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	-
			December	0.0	>6.0	0.0-1.0	Long	Frequent	-
711C:									
Adirondack, very bouldery-	C/D	Very high							
			January	0.5-1.5	1.7-3.2	---	---	None	-
			February	0.5-1.5	1.7-3.2	---	---	None	-
			March	0.5-1.5	1.7-3.2	---	---	None	-
			April	0.5-1.5	1.7-3.2	---	---	None	-
			May	0.5-1.5	1.7-3.2	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	0.5-1.5	1.7-3.2	---	---	None	-
			November	0.5-1.5	1.7-3.2	---	---	None	-
			December	0.5-1.5	1.7-3.2	---	---	None	-
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Burnt Vly----------------	A/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			February	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			March	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			April	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			May	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			June	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			July	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			August	---	---	---	---	---	-
			September	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			October	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			November	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			December	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
721C:									
Becket, very bouldery-----	C	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.0-3.0	2.0-3.0	---	---	None	-
			April	2.0-3.0	2.0-3.0	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Skerry, very bouldery-----	C/D	Medium							
			January	1.5-2.5	1.7-3.2	---	---	None	-
			February	1.5-2.5	1.7-3.2	---	---	None	-
			March	1.5-2.5	1.7-3.2	---	---	None	-
			April	1.5-2.5	1.7-3.2	---	---	None	-
			May	1.5-2.5	1.7-3.2	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-2.5	1.7-3.2	---	---	None	-
			December	1.5-2.5	1.7-3.2	---	---	None	-
721D:									
Becket, very bouldery-----	C	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.0-3.0	2.0-3.0	---	---	None	-
			April	2.0-3.0	2.0-3.0	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table Upper limit	Water table Lower limit	Ponding Surface water depth	Ponding Duration	Ponding Frequency	Dura
				Ft	Ft	Ft			
721F:									
Becket, very bouldery-----	C	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.0-3.0	2.0-3.0	---	---	None	-
			April	2.0-3.0	2.0-3.0	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
723C:									
Becket, very bouldery-----	C	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.0-3.0	2.0-3.0	---	---	None	-
			April	2.0-3.0	2.0-3.0	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
723D:									
Becket, very bouldery-----	C	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.0-3.0	2.0-3.0	---	---	None	-
			April	2.0-3.0	2.0-3.0	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
725B:									
Skerry, very bouldery-----	C/D	Medium							
			January	1.5-2.5	1.7-3.2	---	---	None	-
			February	1.5-2.5	1.7-3.2	---	---	None	-
			March	1.5-2.5	1.7-3.2	---	---	None	-
			April	1.5-2.5	1.7-3.2	---	---	None	-
			May	1.5-2.5	1.7-3.2	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-2.5	1.7-3.2	---	---	None	-
			December	1.5-2.5	1.7-3.2	---	---	None	-
Becket, very bouldery-----	C	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.0-3.0	2.0-3.0	---	---	None	-
			April	2.0-3.0	2.0-3.0	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
727B:									
Skerry, very bouldery-----	C/D	Medium							
			January	1.5-2.5	1.7-3.2	---	---	None	-
			February	1.5-2.5	1.7-3.2	---	---	None	-
			March	1.5-2.5	1.7-3.2	---	---	None	-
			April	1.5-2.5	1.7-3.2	---	---	None	-
			May	1.5-2.5	1.7-3.2	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-2.5	1.7-3.2	---	---	None	-
			December	1.5-2.5	1.7-3.2	---	---	None	-
Adirondack, very bouldery-	C/D	Very high							
			January	0.5-1.5	1.7-3.2	---	---	None	-
			February	0.5-1.5	1.7-3.2	---	---	None	-
			March	0.5-1.5	1.7-3.2	---	---	None	-
			April	0.5-1.5	1.7-3.2	---	---	None	-
			May	0.5-1.5	1.7-3.2	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	0.5-1.5	1.7-3.2	---	---	None	-
			November	0.5-1.5	1.7-3.2	---	---	None	-
			December	0.5-1.5	1.7-3.2	---	---	None	-
741C:									
Potsdam, very bouldery----	C	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Dura
				Ft	Ft	Ft			
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
741D:									
Potsdam, very bouldery----	C	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydrologic group	Surface runoff	Month	Water table		Ponding			
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Dura
				Ft	Ft	Ft			
743C:									
Potsdam, very bouldery----	C	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
743D:									
Potsdam, very bouldery----	C	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
745C:									
Crary, very bouldery------	C/D	High							
			January	1.5-3.0	1.7-3.3	---	---	None	-
			February	1.5-3.0	1.7-3.3	---	---	None	-
			March	1.5-3.0	1.7-3.3	---	---	None	-
			April	1.5-3.0	1.7-3.3	---	---	None	-
			May	1.5-3.0	1.7-3.3	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-3.0	1.7-3.3	---	---	None	-
			December	1.5-3.0	1.7-3.3	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Potsdam, very bouldery----	C	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
747B:									
Crary, very bouldery------	C/D	High							
			January	1.5-3.0	1.7-3.3	---	---	None	-
			February	1.5-3.0	1.7-3.3	---	---	None	-
			March	1.5-3.0	1.7-3.3	---	---	None	-
			April	1.5-3.0	1.7-3.3	---	---	None	-
			May	1.5-3.0	1.7-3.3	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-3.0	1.7-3.3	---	---	None	-
			December	1.5-3.0	1.7-3.3	---	---	None	-
Adirondack, very bouldery-	C/D	Very high							
			January	0.5-1.5	1.7-3.2	---	---	None	-
			February	0.5-1.5	1.7-3.2	---	---	None	-
			March	0.5-1.5	1.7-3.2	---	---	None	-
			April	0.5-1.5	1.7-3.2	---	---	None	-
			May	0.5-1.5	1.7-3.2	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	0.5-1.5	1.7-3.2	---	---	None	-
			November	0.5-1.5	1.7-3.2	---	---	None	-
			December	0.5-1.5	1.7-3.2	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
831C:									
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
Lyman, very bouldery------	D	Very high							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
831D:									
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Dura
				Ft	Ft	Ft			
Lyman, very bouldery------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
831F:									
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Lyman, very bouldery------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
833C:									
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Adirondack, very bouldery-	C/D	Very high							
			January	0.5-1.5	1.7-3.2	---	---	None	-
			February	0.5-1.5	1.7-3.2	---	---	None	-
			March	0.5-1.5	1.7-3.2	---	---	None	-
			April	0.5-1.5	1.7-3.2	---	---	None	-
			May	0.5-1.5	1.7-3.2	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	0.5-1.5	1.7-3.2	---	---	None	-
			November	0.5-1.5	1.7-3.2	---	---	None	-
			December	0.5-1.5	1.7-3.2	---	---	None	-
Lyman, very bouldery------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
836C:									
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
Wonsqueak-----------------	A/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Very long	Frequent	--
			February	0.0	>6.0	0.0-1.0	Very long	Frequent	--
			March	0.0	>6.0	0.0-1.0	Very long	Frequent	--
			April	0.0	>6.0	0.0-1.0	Very long	Frequent	--
			May	0.0	>6.0	0.0-1.0	Very long	Frequent	--
			June	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	--
			July	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	--
			August	---	---	---	---	---	--
			September	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	--
			October	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	--
			November	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	--
			December	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	--
Knob Lock, very bouldery--	D	Very high							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
851C:									
Lyman, very bouldery------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Knob Lock, very bouldery--	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Lyman, very bouldery------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			Dura
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	
				Ft	Ft	Ft			
Knob Lock, very bouldery--	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
851F:									
Lyman, very bouldery------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Knob Lock, very bouldery--	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
931D:									
Mundalite, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.5-3.3	2.5-3.3	---	---	None	-
			April	2.5-3.3	2.5-3.3	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Rawsonville, very bouldery	B	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
931F:									
Mundalite, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.5-3.3	2.5-3.3	---	---	None	-
			April	2.5-3.3	2.5-3.3	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Rawsonville, very bouldery	B	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
941C:									
Rawsonville, very bouldery	B	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Hogback, very bouldery----	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			Dura
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	
				Ft	Ft	Ft			
941D:									
Rawsonville, very bouldery	B	Very high							
			January	---	---	---	---	None	
			February	---	---	---	---	None	
			March	---	---	---	---	None	
			April	---	---	---	---	None	
			May	---	---	---	---	None	
			June	---	---	---	---	None	
			July	---	---	---	---	None	
			August	---	---	---	---	None	
			September	---	---	---	---	None	
			October	---	---	---	---	None	
			November	---	---	---	---	None	
			December	---	---	---	---	None	
Hogback, very bouldery----	D	Very high							
			January	---	---	---	---	None	
			February	---	---	---	---	None	
			March	---	---	---	---	None	
			April	---	---	---	---	None	
			May	---	---	---	---	None	
			June	---	---	---	---	None	
			July	---	---	---	---	None	
			August	---	---	---	---	None	
			September	---	---	---	---	None	
			October	---	---	---	---	None	
			November	---	---	---	---	None	
			December	---	---	---	---	None	
941F:									
Rawsonville, very bouldery	B	Very high							
			January	---	---	---	---	None	
			February	---	---	---	---	None	
			March	---	---	---	---	None	
			April	---	---	---	---	None	
			May	---	---	---	---	None	
			June	---	---	---	---	None	
			July	---	---	---	---	None	
			August	---	---	---	---	None	
			September	---	---	---	---	None	
			October	---	---	---	---	None	
			November	---	---	---	---	None	
			December	---	---	---	---	None	

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Hogback, very bouldery----	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1018B:									
Colton--------------------	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1018C:									
Colton--------------------	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
1018D:									
Colton-------------------	A	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1022A:									
Croghan------------------	A/D	Very low							
			January	1.5-3.0	5.0-5.0	---	---	None	-
			February	1.5-3.0	5.0-5.0	---	---	None	-
			March	1.5-3.0	5.0-5.0	---	---	None	-
			April	1.5-3.0	5.0-5.0	---	---	None	-
			May	1.5-3.0	5.0-5.0	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-3.0	5.0-5.0	---	---	None	-
			December	1.5-3.0	5.0-5.0	---	---	None	-
1023A:									
Naumburg-----------------	A/D	Very high							
			January	0.8-1.5	>6.0	---	---	None	-
			February	0.8-1.5	>6.0	---	---	None	-
			March	0.8-1.5	>6.0	---	---	None	-
			April	0.8-1.5	>6.0	---	---	None	-
			May	0.8-1.5	>6.0	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	0.8-1.5	>6.0	---	---	None	-
			December	0.8-1.5	>6.0	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydrologic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
1024A:									
Searsport	A/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	-
			February	0.0	>6.0	0.0-1.0	Long	Frequent	-
			March	0.0	>6.0	0.0-1.0	Long	Frequent	-
			April	0.0	>6.0	0.0-1.0	Long	Frequent	-
			May	0.0	>6.0	0.0-1.0	Long	Frequent	-
			June	0.0	>6.0	0.0-1.0	Long	Frequent	-
			July	0.0	>6.0	0.0-1.0	Long	Frequent	-
			August	---	---	---	---	---	-
			September	0.0	>6.0	0.0-1.0	Long	Frequent	-
			October	0.0	>6.0	0.0-1.0	Long	Frequent	-
			November	0.0	>6.0	0.0-1.0	Long	Frequent	-
			December	0.0	>6.0	0.0-1.0	Long	Frequent	-
1025A:									
Adams	A	Very low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1025B:									
Adams	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
1025C:									
Adams----------------------	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1025E:									
Adams----------------------	A	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1025F:									
Adams----------------------	A	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
1027B:									
Allagash------------------	B	Low							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
1027C:									
Allagash------------------	B	Low							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
1027E:									
Allagash------------------	B	Medium							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Durat
				Ft	Ft	Ft			
1070B:									
Berkshire, very bouldery--	A	Low							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
1070C:									
Berkshire, very bouldery--	A	Low							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
1070E:									
Berkshire, very bouldery--	A	Medium							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
1075B:									
Potsdam, very bouldery----	C	High							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
1075C:									
Potsdam, very bouldery----	C	High							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
1078B:									
Crary, very bouldery------	C/D	High							
			January	1.5-3.0	1.7-3.3	---	---	None	--
			February	1.5-3.0	1.7-3.3	---	---	None	--
			March	1.5-3.0	1.7-3.3	---	---	None	--
			April	1.5-3.0	1.7-3.3	---	---	None	--
			May	1.5-3.0	1.7-3.3	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	1.5-3.0	1.7-3.3	---	---	None	--
			December	1.5-3.0	1.7-3.3	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
1080B:									
Becket, very bouldery-----	C	Medium							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	2.0-3.0	2.0-3.0	---	---	None	--
			April	2.0-3.0	2.0-3.0	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
1080C:									
Becket, very bouldery-----	C	Medium							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	2.0-3.0	2.0-3.0	---	---	None	--
			April	2.0-3.0	2.0-3.0	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
1080E:									
Becket, very bouldery-----	C	High							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	2.0-3.0	2.0-3.0	---	---	None	--
			April	2.0-3.0	2.0-3.0	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
1081B:									
Skerry, very bouldery-----	C/D	Medium							
			January	1.5-2.5	1.7-3.2	---	---	None	-
			February	1.5-2.5	1.7-3.2	---	---	None	-
			March	1.5-2.5	1.7-3.2	---	---	None	-
			April	1.5-2.5	1.7-3.2	---	---	None	-
			May	1.5-2.5	1.7-3.2	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-2.5	1.7-3.2	---	---	None	-
			December	1.5-2.5	1.7-3.2	---	---	None	-
1081C:									
Skerry, very bouldery-----	C/D	Medium							
			January	1.5-2.5	1.7-3.2	---	---	None	-
			February	1.5-2.5	1.7-3.2	---	---	None	-
			March	1.5-2.5	1.7-3.2	---	---	None	-
			April	1.5-2.5	1.7-3.2	---	---	None	-
			May	1.5-2.5	1.7-3.2	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-2.5	1.7-3.2	---	---	None	-
			December	1.5-2.5	1.7-3.2	---	---	None	-
1091C:									
Lyman, very bouldery------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Becket, very bouldery-----	C	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.0-3.0	2.0-3.0	---	---	None	-
			April	2.0-3.0	2.0-3.0	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1091E:									
Lyman, very bouldery------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Becket, very bouldery-----	C	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.0-3.0	2.0-3.0	---	---	None	-
			April	2.0-3.0	2.0-3.0	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1118C:									
Adams--------------------	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Colton-------------------	A	Low							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1118D:									
Adams--------------------	A	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Colton-------------------	A	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
1170B:									
Henniker------------------	C	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.3-3.3	2.3-3.3	---	---	None	-
			April	2.3-3.3	2.3-3.3	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1170C:									
Henniker------------------	C	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.3-3.3	2.3-3.3	---	---	None	-
			April	2.3-3.3	2.3-3.3	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1170E:									
Henniker------------------	C	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.3-3.3	2.3-3.3	---	---	None	-
			April	2.3-3.3	2.3-3.3	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
1171B:									
Metacomet-----------------	C/D	Medium							
			January	1.5-2.5	1.7-3.0	---	---	None	--
			February	1.5-2.5	1.7-3.0	---	---	None	--
			March	1.5-2.5	1.7-3.0	---	---	None	--
			April	1.5-2.5	1.7-3.0	---	---	None	--
			May	1.5-2.5	1.7-3.0	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	1.5-2.5	1.7-3.0	---	---	None	--
			December	1.5-2.5	1.7-3.0	---	---	None	--
1171C:									
Metacomet-----------------	C/D	Medium							
			January	1.5-2.5	1.7-3.0	---	---	None	--
			February	1.5-2.5	1.7-3.0	---	---	None	--
			March	1.5-2.5	1.7-3.0	---	---	None	--
			April	1.5-2.5	1.7-3.0	---	---	None	--
			May	1.5-2.5	1.7-3.0	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	1.5-2.5	1.7-3.0	---	---	None	--
			December	1.5-2.5	1.7-3.0	---	---	None	--
1172B:									
Pillsbury, somewhat poorly drained-----------	C/D	Very high							
			January	0.8-1.5	1.7-3.0	---	---	None	--
			February	0.8-1.5	1.7-3.0	---	---	None	--
			March	0.8-1.5	1.7-3.0	---	---	None	--
			April	0.8-1.5	1.7-3.0	---	---	None	--
			May	0.8-1.5	1.7-3.0	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	0.8-1.5	1.7-3.0	---	---	None	--
			November	0.8-1.5	1.7-3.0	---	---	None	--
			December	0.8-1.5	1.7-3.0	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Dura
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	
				Ft	Ft	Ft			
1178A:									
Adirondack, very bouldery-	C/D	Very high							
			January	0.5-1.5	1.7-3.2	---	---	None	-
			February	0.5-1.5	1.7-3.2	---	---	None	-
			March	0.5-1.5	1.7-3.2	---	---	None	-
			April	0.5-1.5	1.7-3.2	---	---	None	-
			May	0.5-1.5	1.7-3.2	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	0.5-1.5	1.7-3.2	---	---	None	-
			November	0.5-1.5	1.7-3.2	---	---	None	-
			December	0.5-1.5	1.7-3.2	---	---	None	-
1178B:									
Adirondack, very bouldery-	C/D	Very high							
			January	0.5-1.5	1.7-3.2	---	---	None	-
			February	0.5-1.5	1.7-3.2	---	---	None	-
			March	0.5-1.5	1.7-3.2	---	---	None	-
			April	0.5-1.5	1.7-3.2	---	---	None	-
			May	0.5-1.5	1.7-3.2	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	0.5-1.5	1.7-3.2	---	---	None	-
			November	0.5-1.5	1.7-3.2	---	---	None	-
			December	0.5-1.5	1.7-3.2	---	---	None	-
1185A:									
Wonsqueak, undrained------	A/D	Negligible							
			January	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			February	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			March	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			April	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			May	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			June	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			July	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			August	---	---	---	---	---	-
			September	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			October	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			November	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			December	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
1190C:									
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Lyman, very bouldery------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1190E:									
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Lyman, very bouldery------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1190F:									
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Lyman, very bouldery------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
1193A:									
Wonsqueak-----------------	A/D	Very low							
			January	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			February	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			March	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			April	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			May	0.0	>6.0	0.0-1.0	Very long	Frequent	-
			June	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			July	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			August	---	---	---	---	---	-
			September	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			October	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			November	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
			December	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	-
Humaquepts, frequently flooded------------------	B/D	Very low							
			January	0.0	>6.0	---	---	None	Lo
			February	0.0	>6.0	---	---	None	Lo
			March	0.0	>6.0	---	---	None	Lo
			April	0.0	>6.0	---	---	None	Lo
			May	0.0-1.0	>6.0	---	---	None	Lo
			June	0.0-1.5	>6.0	---	---	None	Lo
			September	0.0-1.5	>6.0	---	---	None	Lo
			October	0.0-1.5	>6.0	---	---	None	Lo
			November	0.0-1.5	>6.0	---	---	None	Lo
			December	0.0-1.0	>6.0	---	---	None	Lo
1291C:									
Becket, very bouldery-----	C	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.0-3.0	2.0-3.0	---	---	None	-
			April	2.0-3.0	2.0-3.0	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Lyman, very bouldery------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1291D:									
Becket, very bouldery-----	C	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.0-3.0	2.0-3.0	---	---	None	-
			April	2.0-3.0	2.0-3.0	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Lyman, very bouldery------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1292C:									
Becket, very bouldery-----	C	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.0-3.0	2.0-3.0	---	---	None	-
			April	2.0-3.0	2.0-3.0	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
1292E:									
Becket, very bouldery-----	C	High							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	2.0-3.0	2.0-3.0	---	---	None	--
			April	2.0-3.0	2.0-3.0	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Durat
				Ft	Ft	Ft			
1292F:									
Becket, very bouldery-----	C	High							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	2.0-3.0	2.0-3.0	---	---	None	--
			April	2.0-3.0	2.0-3.0	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	--
			February	---	---	---	---	None	--
			March	---	---	---	---	None	--
			April	---	---	---	---	None	--
			May	---	---	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	---	---	---	---	None	--
			December	---	---	---	---	None	--
1293C:									
Skerry, very bouldery-----	C/D	Medium							
			January	1.5-2.5	1.7-3.2	---	---	None	--
			February	1.5-2.5	1.7-3.2	---	---	None	--
			March	1.5-2.5	1.7-3.2	---	---	None	--
			April	1.5-2.5	1.7-3.2	---	---	None	--
			May	1.5-2.5	1.7-3.2	---	---	None	--
			June	---	---	---	---	None	--
			July	---	---	---	---	None	--
			August	---	---	---	---	None	--
			September	---	---	---	---	None	--
			October	---	---	---	---	None	--
			November	1.5-2.5	1.7-3.2	---	---	None	--
			December	1.5-2.5	1.7-3.2	---	---	None	--

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			Dura
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	
				Ft	Ft	Ft			
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1380C:									
Becket, very bouldery-----	C	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.0-3.0	2.0-3.0	---	---	None	-
			April	2.0-3.0	2.0-3.0	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Skerry, very bouldery-----	C/D	Medium							
			January	1.5-2.5	1.7-3.2	---	---	None	-
			February	1.5-2.5	1.7-3.2	---	---	None	-
			March	1.5-2.5	1.7-3.2	---	---	None	-
			April	1.5-2.5	1.7-3.2	---	---	None	-
			May	1.5-2.5	1.7-3.2	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-2.5	1.7-3.2	---	---	None	-
			December	1.5-2.5	1.7-3.2	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
1391C:									
Lyman, very bouldery------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Rock outcrop--------------	---	---							
			Jan-Dec	---	---	---	---	---	-
1391D:									
Lyman, very bouldery------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Tunbridge, very bouldery--	C	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Rock outcrop--------------	---	---							
			Jan-Dec	---	---	---	---	---	-
1580B:									
Adirondack, very bouldery-	C/D	Very high							
			January	0.5-1.5	1.7-3.2	---	---	None	-
			February	0.5-1.5	1.7-3.2	---	---	None	-
			March	0.5-1.5	1.7-3.2	---	---	None	-
			April	0.5-1.5	1.7-3.2	---	---	None	-
			May	0.5-1.5	1.7-3.2	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	0.5-1.5	1.7-3.2	---	---	None	-
			November	0.5-1.5	1.7-3.2	---	---	None	-
			December	0.5-1.5	1.7-3.2	---	---	None	-
Skerry, very bouldery-----	C/D	Medium							
			January	1.5-2.5	1.7-3.2	---	---	None	-
			January	1.5-2.5	1.5-3.0	---	---	None	-
			February	1.5-2.5	1.7-3.2	---	---	None	-
			March	1.5-2.5	1.7-3.2	---	---	None	-
			April	1.5-2.5	1.7-3.2	---	---	None	-
			May	1.5-2.5	1.7-3.2	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-2.5	1.7-3.2	---	---	None	-
			December	1.5-2.5	1.7-3.2	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
1591F:									
Lyman, very bouldery------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Berkshire, very bouldery--	A	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1911C:									
Potsdam, very bouldery----	C	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
Lyman, very bouldery------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1911E:									
Potsdam, very bouldery----	C	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
Lyman, very bouldery------	D	Very high							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
1920B:									
Monadnock, very bouldery--	B	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1920C:									
Monadnock, very bouldery--	B	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
1920E:									
Monadnock, very bouldery--	B	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	---	---	---	---	None	-
			April	---	---	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
1941A:									
Sabattis, very bouldery---	C/D	Very high							
			January	0.0	>6.0	0.0-1.0	Long	Frequent	-
			February	0.0	>6.0	0.0-1.0	Long	Frequent	-
			March	0.0	>6.0	0.0-1.0	Long	Frequent	-
			April	0.0	>6.0	0.0-1.0	Long	Frequent	-
			May	0.0-0.5	>6.0	0.0-1.0	Long	Frequent	-
			June	0.0-1.0	>6.0	---	---	---	-
			July	---	---	---	---	---	-
			August	---	---	---	---	---	-
			September	---	---	---	---	---	-
			October	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	-
			November	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	-
			December	0.0	>6.0	0.0-1.0	Long	Frequent	-
2170B:									
Henniker, very stony------	C	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.3-3.3	2.3-3.3	---	---	None	-
			April	2.3-3.3	2.3-3.3	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
2170C:									
Henniker, very stony------	C	Medium							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.3-3.3	2.3-3.3	---	---	None	-
			April	2.3-3.3	2.3-3.3	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Dura
				Ft	Ft	Ft			
2170E:									
Henniker, very stony------	C	High							
			January	---	---	---	---	None	-
			February	---	---	---	---	None	-
			March	2.3-3.3	2.3-3.3	---	---	None	-
			April	2.3-3.3	2.3-3.3	---	---	None	-
			May	---	---	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	---	---	---	---	None	-
			December	---	---	---	---	None	-
2171B:									
Metacomet, very stony-----	C/D	Medium							
			January	1.5-2.5	1.7-3.0	---	---	None	-
			February	1.5-2.5	1.7-3.0	---	---	None	-
			March	1.5-2.5	1.7-3.0	---	---	None	-
			April	1.5-2.5	1.7-3.0	---	---	None	-
			May	1.5-2.5	1.7-3.0	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-2.5	1.7-3.0	---	---	None	-
			December	1.5-2.5	1.7-3.0	---	---	None	-
2171C:									
Metacomet, very stony-----	C/D	Medium							
			January	1.5-2.5	1.7-3.0	---	---	None	-
			February	1.5-2.5	1.7-3.0	---	---	None	-
			March	1.5-2.5	1.7-3.0	---	---	None	-
			April	1.5-2.5	1.7-3.0	---	---	None	-
			May	1.5-2.5	1.7-3.0	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-2.5	1.7-3.0	---	---	None	-
			December	1.5-2.5	1.7-3.0	---	---	None	-

Table 21.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table		Ponding			Dura
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	
				Ft	Ft	Ft			
2172B:									
Pillsbury, very stony-----	C/D	Very high							
			January	0.8-1.5	1.7-3.0	---	---	None	-
			February	0.8-1.5	1.7-3.0	---	---	None	-
			March	0.8-1.5	1.7-3.0	---	---	None	-
			April	0.8-1.5	1.7-3.0	---	---	None	-
			May	0.8-1.5	1.7-3.0	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	0.8-1.5	1.7-3.0	---	---	None	-
			November	0.8-1.5	1.7-3.0	---	---	None	-
			December	0.8-1.5	1.7-3.0	---	---	None	-
DeB:									
Deerfield-----------------	A	---							
			January	1.5-3.0	>6.0	---	---	None	-
			February	1.5-3.0	>6.0	---	---	None	-
			March	1.5-3.0	>6.0	---	---	None	-
			April	1.5-3.0	>6.0	---	---	None	-
			May	1.5-3.0	>6.0	---	---	None	-
			June	---	---	---	---	None	-
			July	---	---	---	---	None	-
			August	---	---	---	---	None	-
			September	---	---	---	---	None	-
			October	---	---	---	---	None	-
			November	1.5-3.0	>6.0	---	---	None	-
			December	1.5-3.0	>6.0	---	---	None	-
GP:									
Pits, sand and gravel-----	---	Very low							
			Jan-Dec	---	---	---	---	---	-
W:									
Water--------------------	---	---							
			Jan-Dec	---	---	---	---	---	-

Table 22.—Relationship between Soil Series, their Parent Material, Landscape Position, and Drainage

Nature of Parent Material	Excessively drained to well drained	Moderately well drained	Somewhat poorly drained	Poorly drained	Very poorly drained
	Soils on Till Plains				
Very deep soils that have a fragipan; formed in medium and moderately coarse textured, slightly acid glacial till; mesic temperature regime	Broadalbin	Broadalbin	Mosherville	Sun	
Very deep, moderately coarse and medium textured soils formed in friable, acid glacial till; mesic temperature regime	Charlton				
Very deep, moderately coarse textured soils formed in friable, acid glacial till; spodic horizon; with a frigid temperature regime	Berkshire				
Very deep, moderately coarse textured soils formed in friable, acid till; frigid temperature					Sabattis
Very deep, moderately coarse textured soils formed in friable, acid till over sandy substratum; spodic horizon; frigid temperature	Monadnock				
Very deep, very gravelly, moderately coarse textured soils formed in friable, acid till; frigid temperature regime					Tughill
Very deep, coarse loamy soils formed in slightly acid to slightly alkaline glacial till; calcareous within 60” depth; mesic temperature		Georgia		Sun	
Very deep, fine loamy glacial till; calcareous within 60” depth; mesic temperature regime	Lansing		Appleton	Ilion	
Very deep, fine loamy glacial till; calcareous within 48” depth; 28-35 percent clay in argillic horizon; mesic temperature regime			Darien	Ilion	
Very deep, fine loamy till; calcareous within 60 inches; dark surface derived from black shale; mesic temperature regime	Mohawk		Manheim	Ilion	
Very deep, moderately coarse and medium textured formed over dense, acid, glacial till; without spodic horizon; mesic temperature regime	Paxton	Woodbridge	Ridgebury*		Whitman

See footnotes at end of table.

Table 22.—Relationship between Soil Series, their Parent Material, Landscape Position, and Drainage—Continued

Nature of Parent Material	Excessively drained to well drained	Moderately well drained	Somewhat poorly drained	Poorly drained	Very poorly drained
	Soils on Till Plains				
Very deep, moderately coarse textured soils formed over dense acid, glacial till; without spodic horizon; frigid temperature regime	Henniker	Metacomet	Pillsbury	Pillsbury	
Very deep, moderately coarse textured soils formed over dense, acid, sandy glacial till; spodic horizon; frigid temperature regime	Becket	Skerry	Adirondack		
Very deep, moderately coarse textured soils formed over dense, acid, sandy glacial till; high organic carbon spodic horizon; frigid temperature regime; less than 2,200 feet elevation	Mundalite				
Very deep, medium or moderately coarse textured, 50-80 percent silt plus very fine sand subsoil; over dense, acid till; spodic horizon; frigid temperature	Potsdam	Crary	Adirondack		
Moderately deep, medium textured soils formed in friable, loamy glacial till derived from limestone; mesic temperature	Galway				
Shallow, medium textured soils formed in friable, loamy glacial till derived from limestone; mesic temperature	Farmington				
Moderately deep, medium textured soils formed in till derived from black, calcareous, soft shale bedrock; mesic temperature regime	Palatine				
Moderately deep, medium to moderately fine textured soils formed in moderately acid to calcareous till over limy sandstone or limestone bedrock; mesic temperature regime			Angola		
Moderately deep, coarse loamy acid, till overlying gneiss or other metamorphic bedrock; mesic temperature regime	Chatfield				
Shallow, moderately coarse textured acid till soils; overlying gneiss or other metamorphic bedrock; mesic temperature regime	Hollis				

See footnotes at end of table.

Table 22.—Relationship between Soil Series, their Parent Material, Landscape Position, and Drainage—Continued

Nature of Parent Material	Excessively drained to well drained	Moderately well drained	Somewhat poorly drained	Poorly drained	Very poorly drained
	Soils on Till Plains				
Moderately deep, coarse loamy, acid till soils; overlying gneiss or other metamorphic bedrock; spodic horizon; frigid temperature	Tunbridge				
Shallow, moderately coarse textured acid till soils overlying gneiss or other metamorphic bedrock; spodic horizon; frigid temperature	Lyman				
Moderately deep, coarse loamy, acid till soils overlying gneiss or other metamorphic bedrock; frigid temperature; high organic carbon in spodic horizon; greater than 2,200 feet in elevation	Rawsonville				
Shallow, moderately coarse textured acid till soils overlying gneiss or other metamorphic bedrock; frigid temperature; high organic carbon in spodic horizon; greater than 2,200 feet elevation	Hogback				
	Soils on Outwash Plains				
Very deep, coarse textured soils formed in acid sandy glacial outwash; mesic temperature regime	Windsor	Deerfield	Stafford		Scarboro
Very deep, coarse textured soils formed in acid sandy outwash; spodic horizon; frigid temperature	Adams	Croghan	Naumburg	Naumburg	Searsport
Very deep, moderately coarse textured subsoil over stratified outwash outwash; frigid temperature regime	Agawam	Ninigret			
Very deep, moderately coarse textured subsoil over stratified outwash; frigid temperature regime	Allagash				
Very deep, moderately coarse textured subsoil over non-contrasting stratified sub-stratum; mesic temperature	Merrimac				
Very deep, moderately coarse textured subsoil over very gravelly stratified sand; carbonates 40-80 inches deep; mesic temperature regime	Alton		Fredon		

See footnotes at end of table.

Table 22.—Relationship between Soil Series, their Parent Material, Landscape Position, and Drainage—Continued

Nature of Parent Material	Excessively drained to well drained	Moderately well drained	Somewhat poorly drained	Poorly drained	Very poorly drained
	Soils on Outwash Plains				
Very deep, very gravelly coarse textured soils formed in acid outwash; mesic temperature regime	Hinckley				
Very deep, very gravelly coarse textured soils formed in acid outwash; spodic horizon; frigid temperature regime	Colton				
	Soils on Lacustrine Basins				
Very deep, moderately coarse textured subsoil overlying clay and silt; mesic temperature regime		Elmridge	Aeric Epiaquepts		
Very deep, coarse textured subsoil overlying clay and silt; mesic temperature regime					Cheektowaga
Very deep, moderately fine or fine textured soils; mesic temperature regime		Hudson	Rhinebeck	Madalin	Fonda
Moderately fine textured subsoil 20-40 inches deep over loamy till; mesic temperature regime			Churchville		
Very deep, medium textured soils formed in strongly or moderately acid deposits; mesic temperature regime	Unadilla	Scio	Tonawanda		Birdsall
	Soils on Flood Plains				
Very deep, medium textured soils formed in strongly acid to neutral deposits; coarse textured substratum greater than 40 inches deep; mesic temperature regime		Teel			
Very deep, moderately coarse and medium textured soils formed in very strongly acid to neutral deposits; coarse textured sub-stratum within 40 inches deep; frigid temperature regime				Rumney	
Very deep, variable, coarse to moderately fine textured, very strongly acid to alkaline deposits; mesic temperature	Hapludolls		Endoaquolls		
Very deep, variable, coarse to moderately fine textured, very strongly acid to alkaline deposits; frigid temperature				Humaquepts	

See footnotes at end of table.

Table 22.—Relationship between Soil Series, their Parent Material, Landscape Position, and Drainage—Continued

Nature of Parent Material	Excessively drained to well drained	Moderately well drained	Somewhat poorly drained	Poorly drained	Very poorly drained
	Organic Soils				
Very deep soils formed in 16 to 51 inches of well decomposed organic material overlying coarse textured sediments; frigid temperature regime					Burnt Vly
Very deep soils formed in 16 to 51 inches of well decomposed organic material overlying sandy sediments; mesic temperature regime					Timakwa
Very shallow and shallow mostly organic soils overlying meta-morphic bedrock; frigid temperature	Knob Lock				
Very deep soils formed in more than 51 inches of well decomposed organic material; mesic temperature					Catden
Very deep soils formed in more than 51 inches of well decomposed organic material; frigid temperature regime					Pleasant Lake
Very deep soils formed in 16 to 51 inches of well decomposed organic material overlying loamy sediments; frigid temperature regime					Wonsqueak
Continuously ponded organic and mineral soils; marsh					Saprists & Aquents
	Soils on Glacial Till, Outwash, and Lacustrine Plains Disturbed by Human Activities				
Deep soils in medium textured, human transported soil material		Udorthents	Udorthents	Endoquents	Endoquents
Deep soils in coarse textured, human transported soil material		Udipsamments			

* Ridgebury soils are a taxadjunct to the series which now centers on only poorly drained.

Table 23.—Taxonomic Classification of the Soils

(An asterisk in the first column indicates a taxadjunct to the series. See text for a description of those characteristics that are outside the range of the series.)

Soil name	Family or higher taxonomic class
Adams	Sandy, isotic, frigid Typic Haplorthods
Adirondack	Coarse-loamy, isotic, frigid Typic Endoaquods
Aeric Epiaquepts	Aeric Epiaquepts
Agawam	Coarse-loamy over sandy or sandy-skeletal, mixed, active, mesic Typic Dystrudepts
Allagash	Coarse-loamy over sandy or sandy-skeletal, isotic, frigid Typic Haplorthods
Alton	Loamy-skeletal, mixed, active, mesic Dystric Eutrudepts
Angola	Fine-loamy, mixed, active, mesic Aeric Endoaqualfs
Appleton	Fine-loamy, mixed, active, mesic Aeric Endoaqualfs
Aquents	Aquents
Becket	Coarse-loamy, isotic, frigid Oxyaquic Haplorthods
Berkshire	Coarse-loamy, isotic, frigid Typic Haplorthods
Birdsall	Coarse-silty, mixed, active, nonacid, mesic Typic Humaquepts
Broadalbin	Coarse-loamy, mixed, active, mesic Typic Fragiudepts
Burnt Vly	Sandy or sandy-skeletal, mixed, dysic, frigid Terric Haplosaprists
Catden	Euic, mesic Typic Haplosaprists
Charlton	Coarse-loamy, mixed, active, mesic Typic Dystrudepts
Chatfield	Coarse-loamy, mixed, superactive, mesic Typic Dystrudepts
Cheektowaga	Sandy over clayey, mixed, active, mesic Typic Epiaquolls
Churchville	Fine, illitic, mesic Aeric Endoaqualfs
Colton	Sandy-skeletal, isotic, frigid Typic Haplorthods
Crary	Coarse-loamy, isotic, frigid Aquic Haplorthods
Croghan	Sandy, isotic, frigid Aquic Haplorthods
Darien	Fine-loamy, mixed, active, mesic Aeric Endoaqualfs
Deerfield	Mixed, mesic Aquic Udipsamments
Elmridge	Coarse-loamy over clayey, mixed, semiactive, mesic Aquic Dystric Eutrudepts
Endoaquents	Endoaquents
Endoaquolls	Endoaquolls
Farmington	Loamy, mixed, active, mesic Lithic Eutrudepts
Fonda	Fine, illitic, nonacid, mesic Mollic Endoaquepts
Fredon	Coarse-loamy over sandy or sandy-skeletal, mixed, active, nonacid, mesic Aeric Endoaquepts
Galway	Coarse-loamy, mixed, superactive, mesic Typic Eutrudepts
Georgia	Coarse-loamy, mixed, semiactive, mesic Aquic Dystric Eutrudepts
Hapludolls	Hapludolls
Henniker	Coarse-loamy, mixed, semiactive, frigid Oxyaquic Dystrudepts
Hinckley	Sandy-skeletal, mixed, mesic Typic Udorthents
Hogback	Loamy, isotic, frigid Lithic Haplohumods
Hollis	Loamy, mixed, active, mesic Lithic Dystrudepts
Hudson	Fine, illitic, mesic Glossaquic Hapludalfs
Humaquepts	Humaquepts
Ilion	Fine-loamy, mixed, active, mesic Mollic Endoaqualfs
Knob Lock	Dysic, frigid Lithic Udifolists
Lansing	Fine-loamy, mixed, active, mesic Glossic Hapludalfs
Lyman	Loamy, isotic, frigid Lithic Haplorthods
Madalin	Fine, illitic, mesic Mollic Endoaqualfs
Manheim	Fine-loamy, mixed, active, mesic Udollic Endoaqualfs
Merrimac	Sandy, mixed, mesic Typic Dystrudepts
Metacomet	Coarse-loamy, mixed, active, frigid Aquic Dystrudepts
Mohawk	Fine-loamy, mixed, active, mesic Mollic Hapludalfs
Monadnock	Coarse-loamy over sandy or sandy-skeletal, isotic, frigid Typic Haplorthods
Mosherville	Coarse-loamy, mixed, active, mesic Aquic Fragiudepts
Mundalite	Coarse-loamy, isotic, frigid Oxyaquic Haplorthods
Naumburg	Sandy, isotic, frigid Typic Endoaquods
Ninigret	Coarse-loamy over sandy or sandy-skeletal, mixed, active, mesic Aquic Dystrudepts
*Palatine	Loamy-skeletal, mixed, active, mesic Typic Hapludolls
Paxton	Coarse-loamy, mixed, active, mesic Oxyaquic Dystrudepts
Pillsbury	Coarse-loamy, mixed, active, acid, frigid Aeric Epiaquepts
Pleasant Lake	Dysic, frigid Typic Haplosaprists
Potsdam	Coarse-loamy, isotic, frigid Typic Haplorthods
Rawsonville	Coarse-loamy, isotic, frigid Typic Haplohumods

Table 23.—Taxonomic Classification of the Soils—Continued

Soil name	Family or higher taxonomic class
Rhinebeck	Fine, illitic, mesic Aeric Endoaqualfs
*Ridgebury	Loamy, mixed, active, acid, mesic Aeric Endoaquepts
Rumney	Coarse-loamy, mixed, active, nonacid, frigid Fluvaquentic Endoaquepts
Sabattis	Coarse-loamy, mixed, active, nonacid, frigid Histic Humaquepts
Saprists	Saprists
Scarboro	Sandy, mixed, mesic Histic Humaquepts
Scio	Coarse-silty, mixed, active, mesic Aquic Dystrudepts
Searsport	Sandy, mixed, frigid Histic Humaquepts
Skerry	Coarse-loamy, isotic, frigid Aquic Haplorthods
Stafford	Mixed, mesic Typic Psammaquents
Sun	Coarse-loamy, mixed, active, nonacid, mesic Aeric Epiaquepts
Teel	Coarse-silty, mixed, active, mesic Fluvaquentic Eutrudepts
Timakwa	Sandy or sandy-skeletal, mixed, euic, mesic Terric Haplosaprists
Tonawanda	Coarse-silty, mixed, active, nonacid, mesic Aeric Endoaquepts
Tughill	Loamy-skeletal, mixed, active, nonacid, frigid Typic Endoaquepts
Tunbridge	Coarse-loamy, isotic, frigid Typic Haplorthods
Udipsamments	Udipsamments
Udorthents	Udorthents
Unadilla	Coarse-silty, mixed, active, mesic Typic Dystrudepts
Whitman	Loamy, mixed, active, acid, mesic, shallow Typic Humaquepts
Windsor	Mixed, mesic Typic Udipsamments
Wonsqueak	Loamy, mixed, euic, frigid Terric Haplosaprists
Woodbridge	Coarse-loamy, mixed, active, mesic Aquic Dystrudepts

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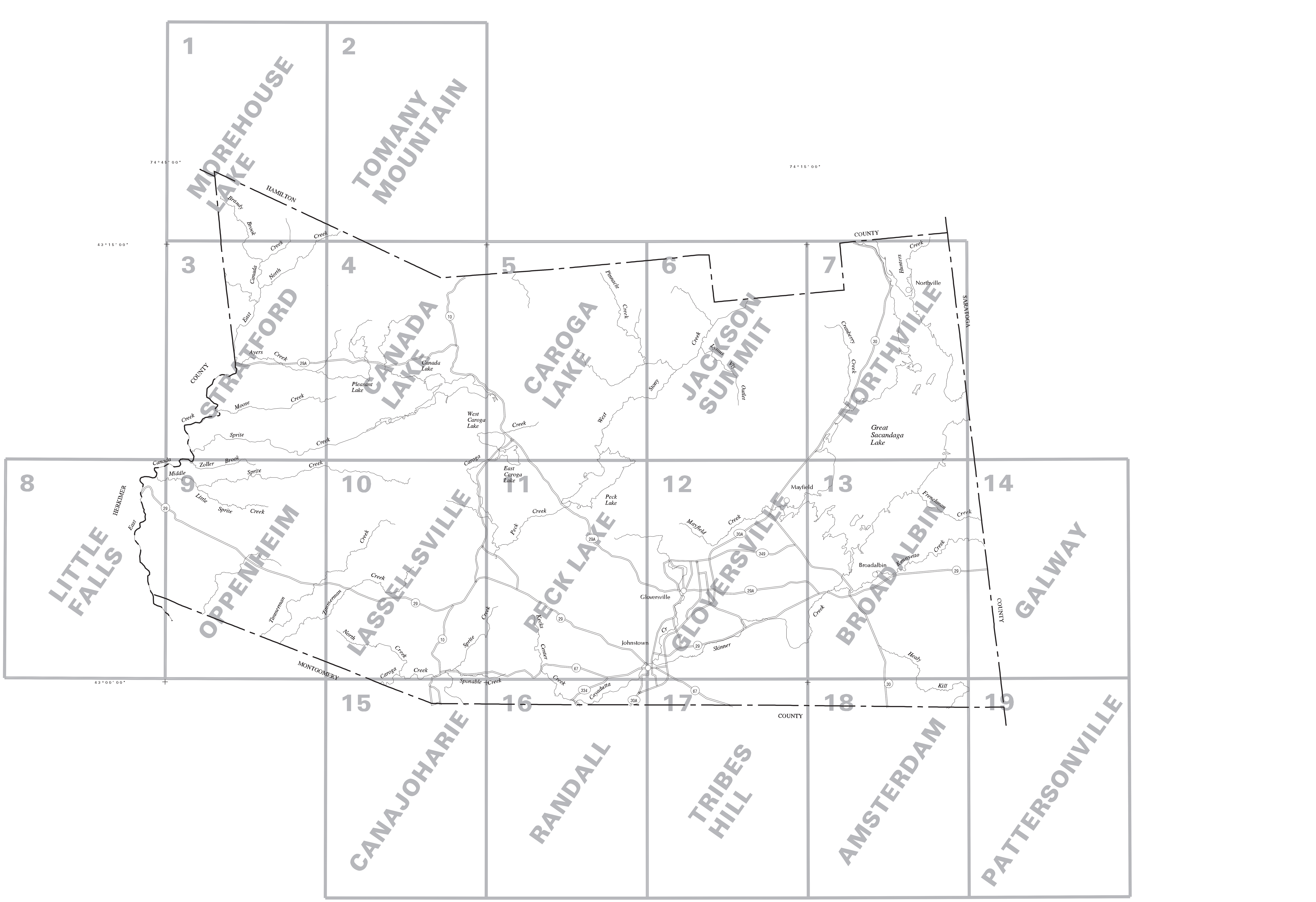

INDEX TO MAP SHEETS
FULTON COUNTY, NEW YORK

MILES

KILOMETERS

SCALE = 1:135000

CONVENTIONAL AND SPECIAL SYMBOLS LEGEND

NAME

Berkshire loam, 3 to 8 percent slopes, very bouldery
Berkshire loam, 8 to 15 percent slopes, very bouldery
Berkshire loam, 15 to 35 percent slopes, very bouldery
Potsdam loam, 3 to 8 percent slopes, very bouldery
Potsdam loam, 8 to 15 percent slopes, very bouldery
Crary loam, 3 to 8 percent slopes, very bouldery
Becket sandy loam, 3 to 8 percent slopes, very bouldery
Becket sandy loam, 8 to 15 percent slopes, very bouldery
Becket sandy loam, 15 to 35 percent slopes, very bouldery
Skerry fine sandy loam, 3 to 8 percent slopes, very bouldery
Skerry fine sandy loam, 8 to 15 percent slopes, very bouldery
Lyman-Becket-Tunbridge complex, 8 to 15 percent slopes, very rocky, very bouldery
Lyman-Becket-Tunbridge complex, 15 to 35 percent slopes, very rocky, very bouldery
Adams-Colton complex, 3 to 15 percent slopes
Adams-Colton complex, 15 to 35 percent slopes
Henniker fine sandy loam, 3 to 8 percent slopes
Henniker fine sandy loam, 8 to 15 percent slopes
Henniker fine sandy loam, 15 to 35 percent slopes
Metacomet fine sandy loam, 3 to 8 percent slopes
Metacomet fine sandy loam, 8 to 15 percent slopes
Pillsbury fine sandy loam, 3 to 8 percent slopes
Adirondack fine sandy loam, 0 to 3 percent slopes, very bouldery
Adirondack fine sandy loam, 3 to 8 percent slopes, very bouldery
Wonsqueak mucky peat, 0 to 2 percent slopes
Tunbridge-Lyman complex, 3 to 15 percent slopes, very rocky, very bouldery
Tunbridge-Lyman complex, 15 to 35 percent slopes, very rocky, very bouldery
Tunbridge-Lyman complex, 35 to 70 percent slopes, very rocky, very bouldery
Wonsqueak-Humaquepts complex, 0 to 3 percent slopes, frequently flooded
Becket-Lyman-Tunbridge complex, 8 to 15 percent slopes, very rocky, very bouldery
Becket-Lyman-Tunbridge complex, 15 to 35 percent slopes, very rocky, very bouldery
Becket-Tunbridge complex, 3 to 15 percent slopes, rocky, very bouldery
Becket-Tunbridge complex, 15 to 35 percent slopes, rocky, very bouldery
Becket-Tunbridge complex, 35 to 60 percent slopes, rocky, very bouldery
Skerry-Tunbridge complex, 3 to 15 percent slopes, rocky, very bouldery
Becket-Skerry complex, 3 to 15 percent slopes, very bouldery
Lyman-Tunbridge-Rock outcrop complex, 8 to 15 percent slopes, very bouldery
Lyman-Tunbridge-Rock outcrop complex, 15 to 35 percent slopes, very bouldery
Adirondack-Skerry complex, 3 to 8 percent slopes, very bouldery
Lyman-Berkshire complex, 35 to 60 percent slopes, very rocky, very bouldery
Potsdam-Lyman complex, 8 to 15 percent slopes, rocky, very bouldery
Potsdam-Lyman complex, 15 to 35 percent slopes, rocky, very bouldery
Monadnock fine sandy loam, 3 to 8 percent slopes, very bouldery
Monadnock fine sandy loam, 8 to 15 percent slopes, very bouldery
Monadnock fine sandy loam, 15 to 35 percent slopes, very bouldery
Sabattis mucky loam, 0 to 3 percent slopes, very bouldery
Henniker fine sandy loam, 3 to 8 percent slopes, very stony
Henniker fine sandy loam, 8 to 15 percent slopes, very stony
Henniker fine sandy loam, 15 to 35 percent slopes, very stony
Metacomet fine sandy loam, 3 to 8 percent slopes, very stony
Metacomet fine sandy loam, 8 to 15 percent slopes, very stony
Pillsbury fine sandy loam, 3 to 8 percent slopes, very stony
Deerfield loamy fine sand, undulating
Pits, sand and gravel
Water

CULTURAL FEATURES

BOUNDARIES

County or parish

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Limit of soil survey (label) and/or denied access area

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STREAMS

Perennial stream, double line

Perennial stream, single line

Drainage end

Spring

SOIL SURVEY FEATURES

SOIL DELINEATIONS AND SYMBOLS 3A 7B

Clay spot

Gravel pit

Gravelly spot

Marsh or swamp

Mine or quarry

Rock outcrop

Sandy spot

Slide or slip

Stony spot

Very stony spot

Wet spot

AD HOC FEATURES

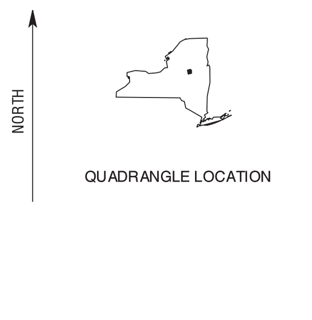
Disturbed area

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

FULTON COUNTY, NEW YORK
MOREHOUSE LAKE QUADRANGLE
SHEET NUMBER 1 OF 19

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1995-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUADRANGLE LOCATION

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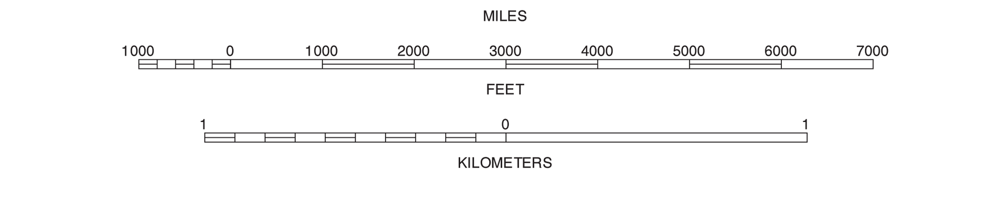

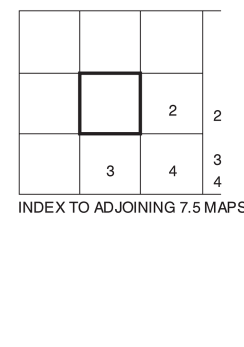

2 TOMANY MOUNTAIN
3 STRATFORD
4 CANADA LAKE

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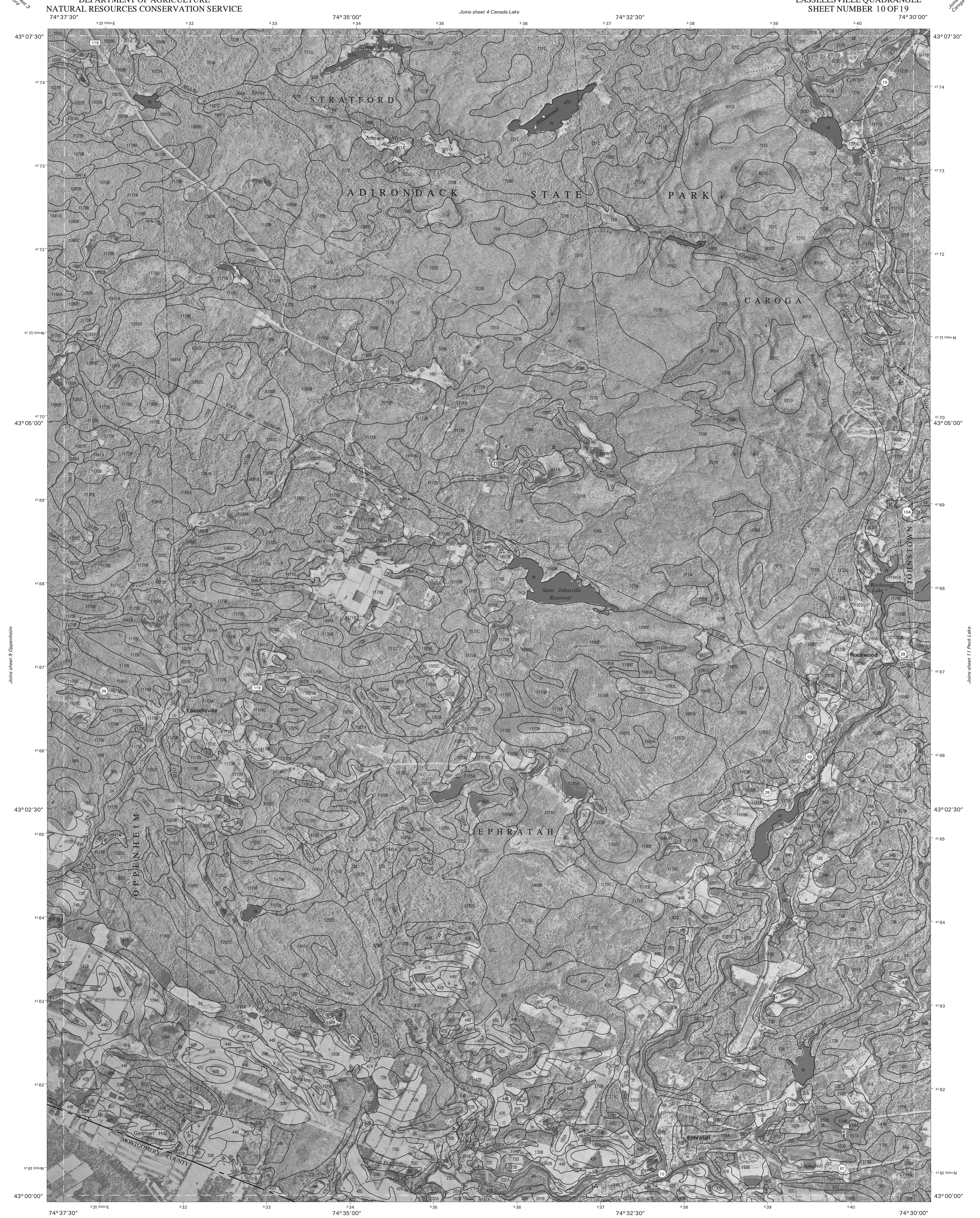
MOREHOUSE LAKE, NEW YORK

7.5 MINUTE SERIES
SHEET NUMBER 1 OF 19

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.



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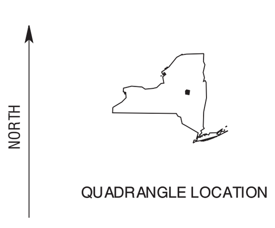

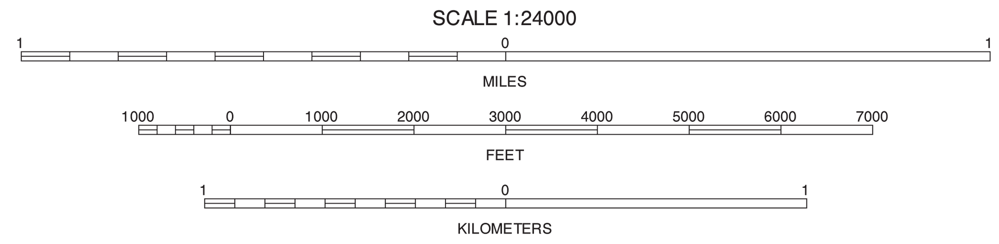

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9		11
	15	16

3 STRATFORD
4 CANADA LAKE
5 CAROGA LAKE
9 OPPENHEIM
11 PECK LAKE
15 CANAJOHARIE
16 RANDALL

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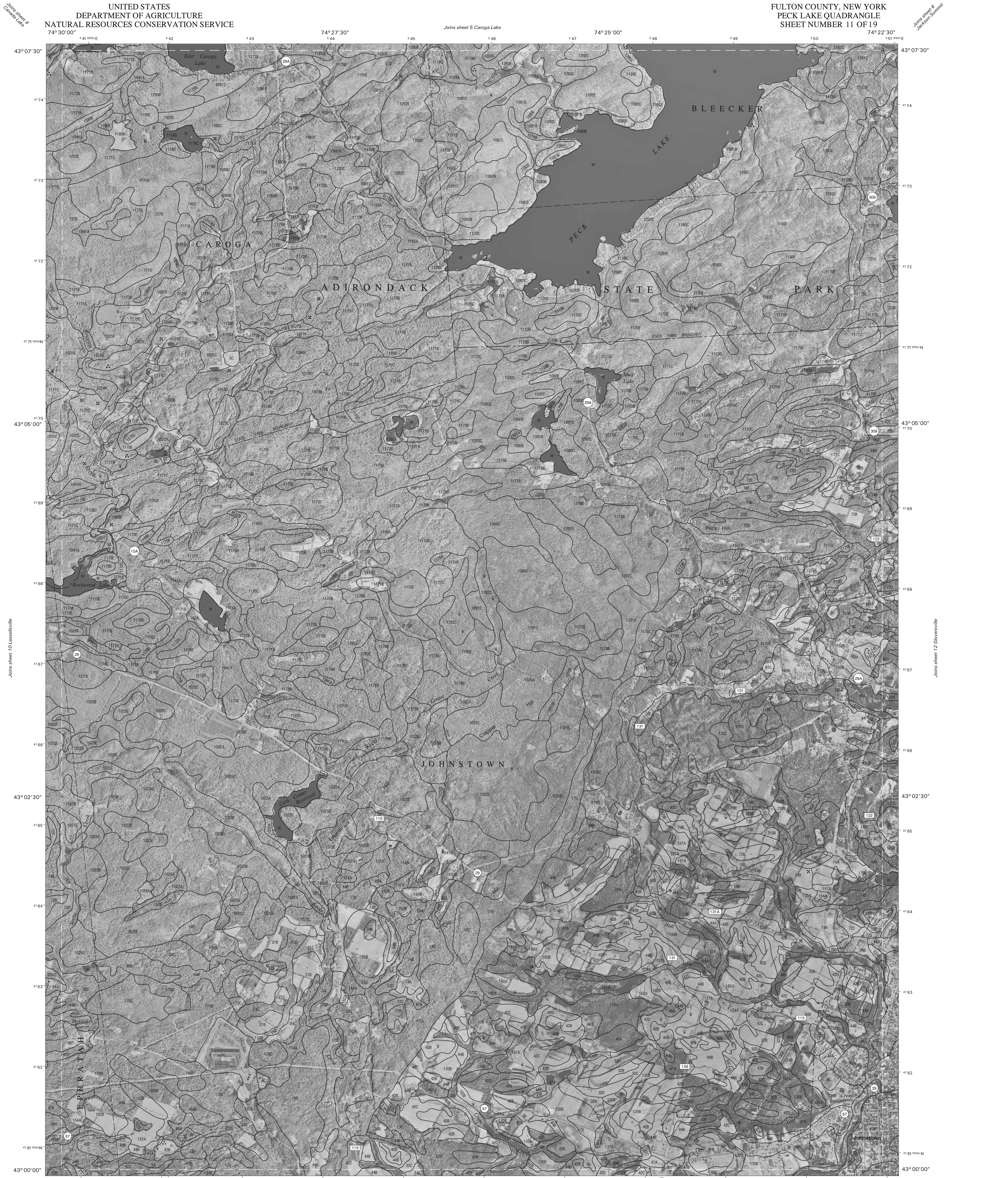
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

FULTON COUNTY, NEW YORK
PECK LAKE QUADRANGLE
SHEET NUMBER 11 OF 19



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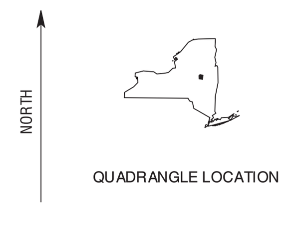

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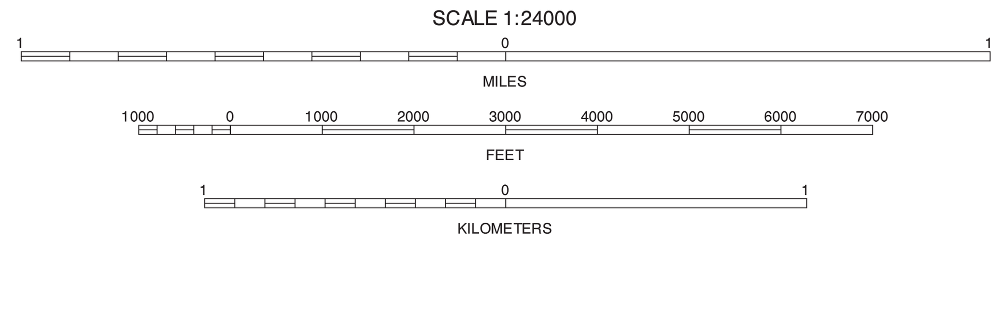

4	5	6
10		12
15	16	17

4 CANADA LAKE
5 CAROGA LAKE
6 JACKSON SUMMIT
10 LASSELLSVILLE
12 GLOVERSVILLE
15 CANAJOHARIE
16 RANDALL
17 TRIBES HILL

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PECK LAKE, NEW YORK

7.5 MINUTE SERIES
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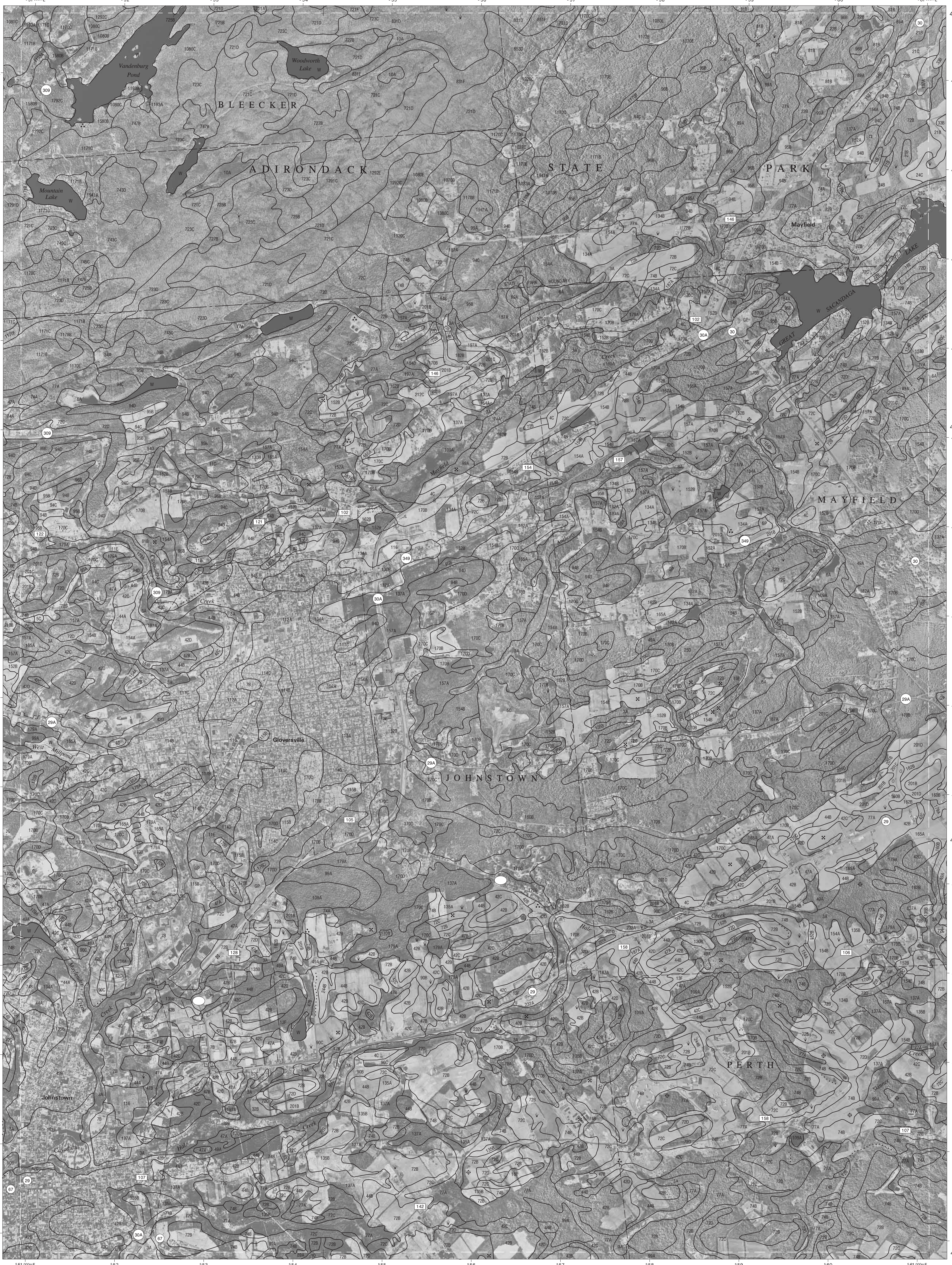
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

FULTON COUNTY, NEW YORK
GLOVERSVILLE QUADRANGLE
SHEET NUMBER 12 OF 19

Joins sheet 5 Caroga Lake

Joins sheet 7 Northville

Joins sheet 6 Jackson Summit



Joins sheet 11 Peck Lake

Joins sheet 13 Broadalbin

Joins sheet 17 Tribes Hill

Joins sheet 16 Randall

Joins sheet 18 Amsterdam

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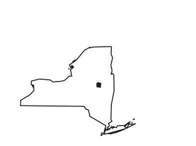
North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH



QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

5	6	7
11		13
16	17	18

5 CAROGA LAKE
6 JACKSON SUMMIT
7 NORTHVILLE
11 PECK LAKE
13 BROADALBIN
16 RANDALL
17 TRIBES HILL
18 AMSTERDAM

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GLOVERSVILLE, NEW YORK
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Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

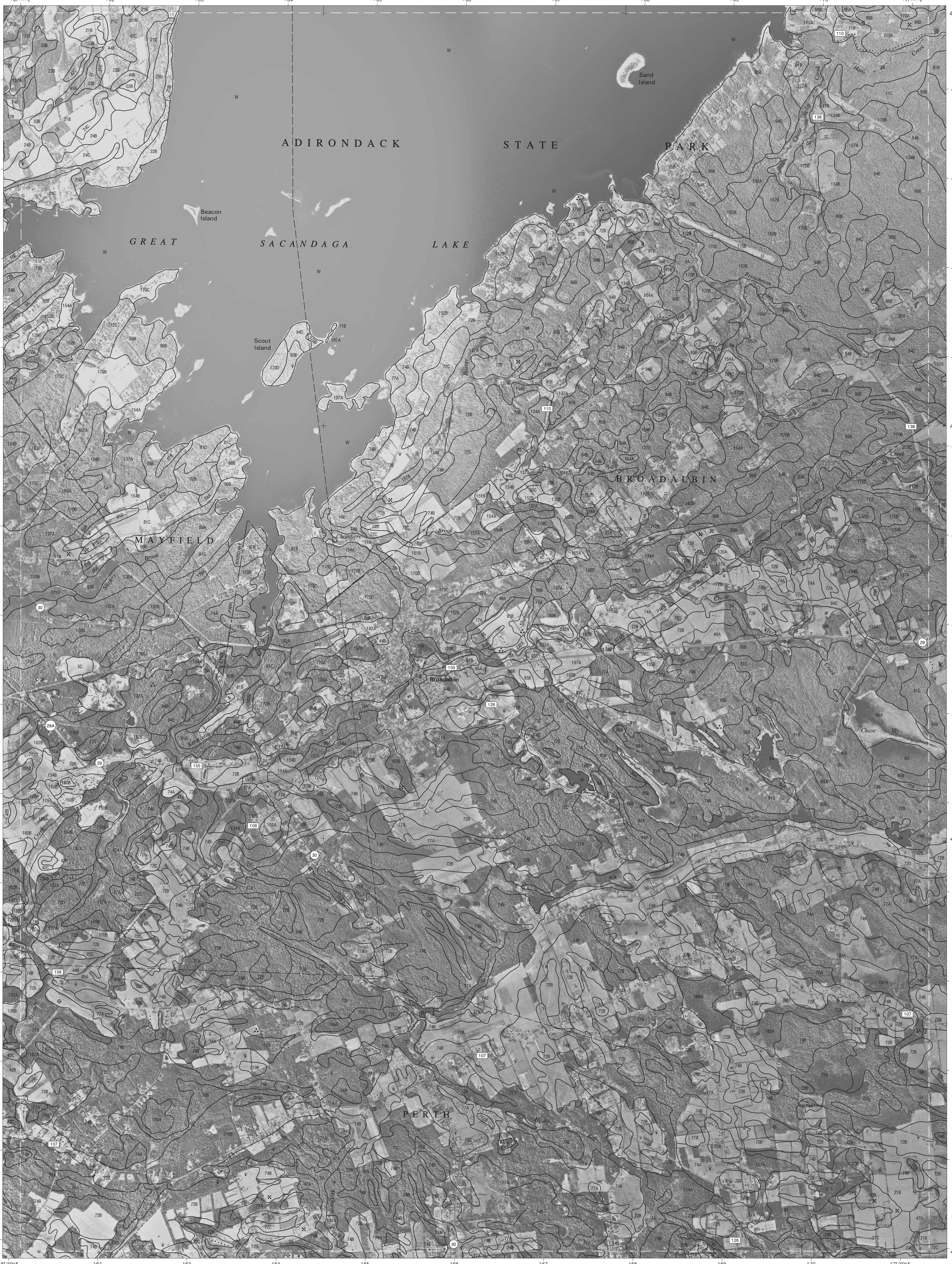
FULTON COUNTY, NEW YORK
BROADALBIN QUADRANGLE
SHEET NUMBER 13 OF 19

Joins sheet 6 Jackson Summit

Joins sheet 7 Northville

Joins sheet 12 Gloversville

Joins sheet 14 Galway



Joins sheet 17 Tribes Hill

Joins sheet 18 Amsterdam

Joins sheet 19 Pattersonville

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NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

6	7	
12		14
17	18	19

6 JACKSON SUMMIT
7 NORTHVILLE
12 GLOVERSVILLE
14 GALWAY
17 TRIBES HILL
18 AMSTERDAM
19 PATTERSONVILLE

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BROADALBIN, NEW YORK
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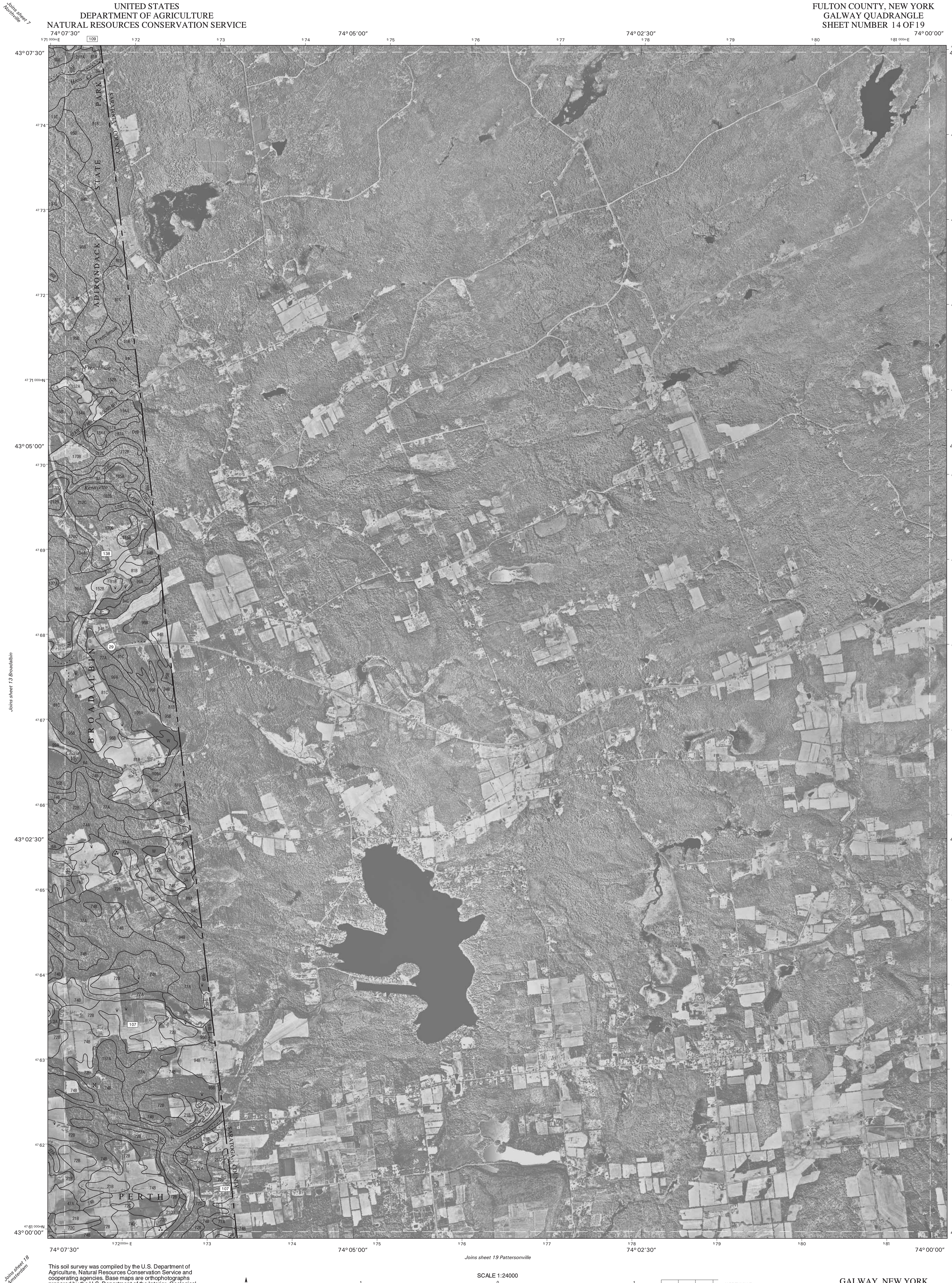
Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

FULTON COUNTY, NEW YORK
GALWAY QUADRANGLE
SHEET NUMBER 14 OF 19



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NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

7			7 NORTHVILLE
13			13 BROADALBIN
18	19		18 AMSTERDAM 19 PATTERSONVILLE

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GALWAY, NEW YORK
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Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

FULTON COUNTY, NEW YORK
CANAJOHARIE QUADRANGLE
SHEET NUMBER 15 OF 19

Joins sheet 9 Oppenheim

Joins sheet 10 Lassellsville

Joins sheet 11 Peck Lake

Joins sheet 16 Randall

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North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

9	10	11
		16

9 OPPENHEIM
10 LASSELLSVILLE
11 PECK LAKE
16 RANDALL

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CANAJOHARIE, NEW YORK
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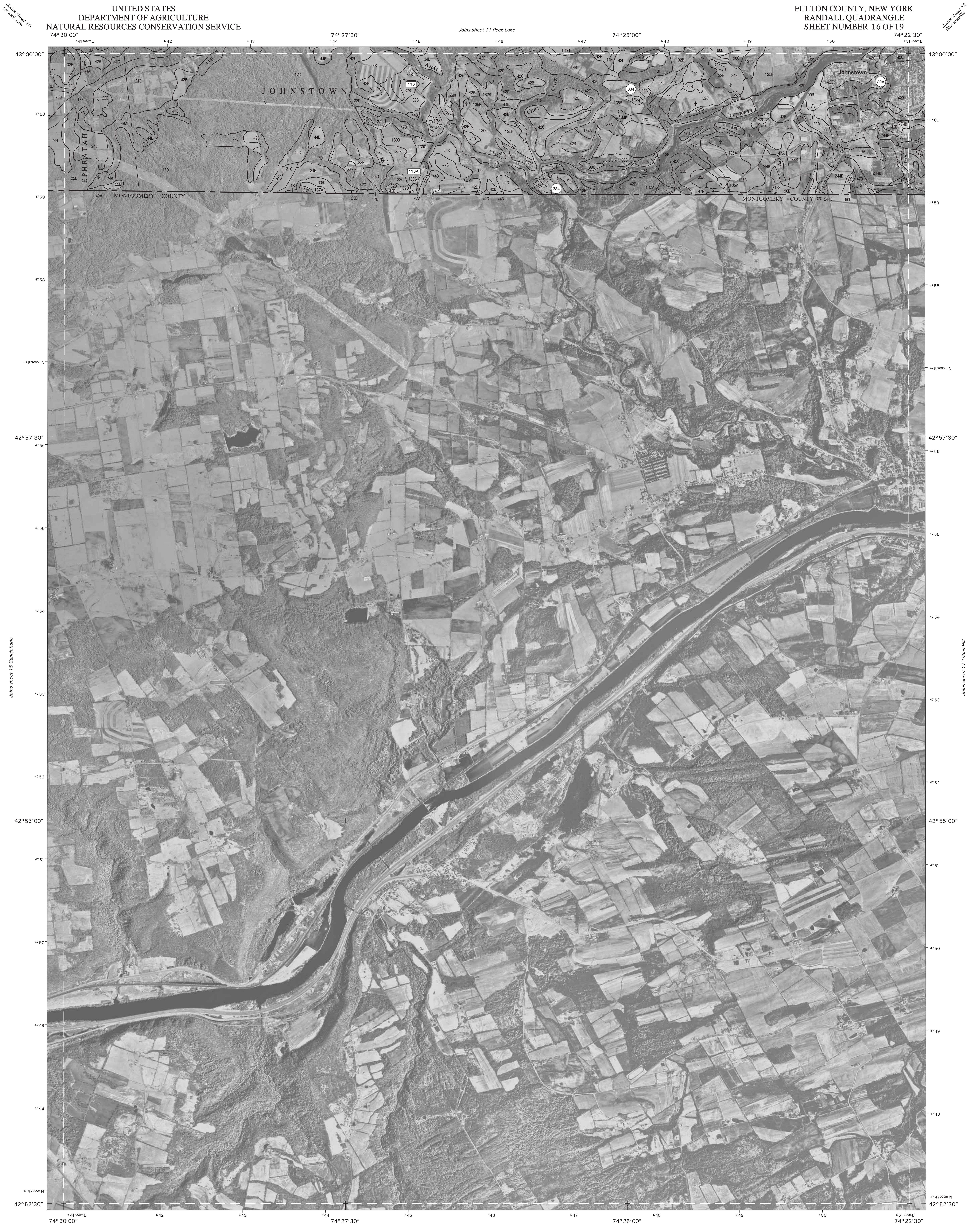
Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

FULTON COUNTY, NEW YORK
RANDALL QUADRANGLE
SHEET NUMBER 16 OF 19



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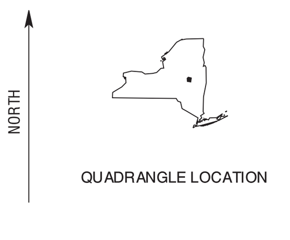

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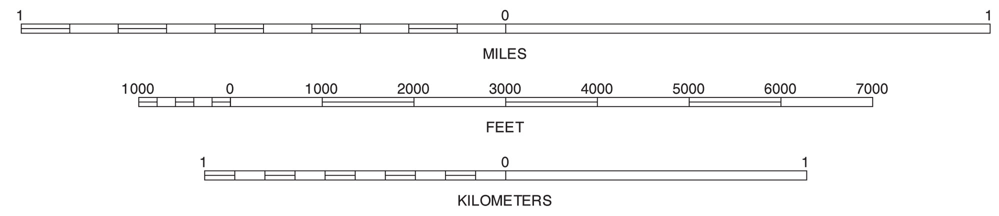

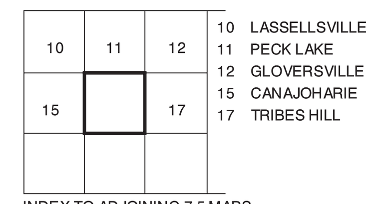

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Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

FULTON COUNTY, NEW YORK
TRIBES HILL QUADRANGLE
SHEET NUMBER 17 OF 19

Joins sheet 11 Peck Lake

Joins sheet 12 Gloversville

Joins sheet 13 Broadalbin

74° 22'30"   74° 20'00"   74°17'30"   74°15'00"

43° 00'00"

42° 52'30"

Joins sheet 16 Randall

Joins sheet 18 Amsterdam

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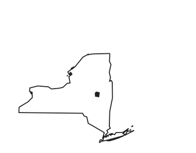
NORTH



QUADRANGLE LOCATION

SCALE 1:24000

1 0 1
MILES

1000 0 1000 2000 3000 4000 5000 6000 7000
FEET

1 0 1
KILOMETERS

11	12	13
16		18

11 PECK LAKE
12 GLOVERSVILLE
13 BROADALBIN
16 RANDALL
18 AMSTERDAM

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TRIBES HILL, NEW YORK
7.5 MINUTE SERIES
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Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

FULTON COUNTY, NEW YORK
AMSTERDAM QUADRANGLE
SHEET NUMBER 18 OF 19

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1995-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

1 0 1 MILES

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 0 1 KILOMETERS

12	13	14
17		19

12 GLOVERSVILLE
13 BROADALBIN
14 GALWAY
17 TRIBES HILL
19 PATTERSONVILLE

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Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

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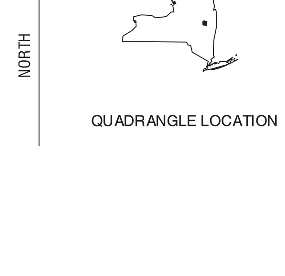
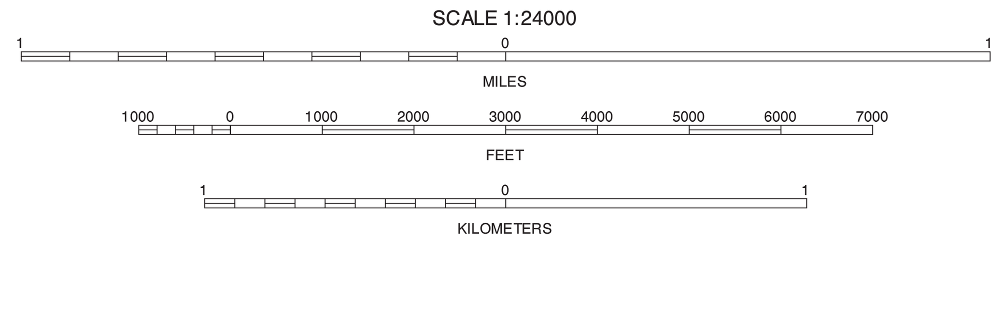
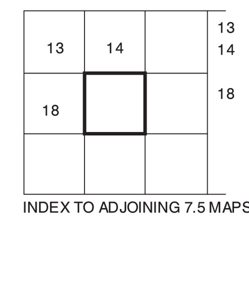


QUADRANGLE LOCATION

SCALE 1:24000





13 BROADALBIN
14 GALWAY
18 AMSTERDAM

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PATTERSONVILLE, NEW YORK
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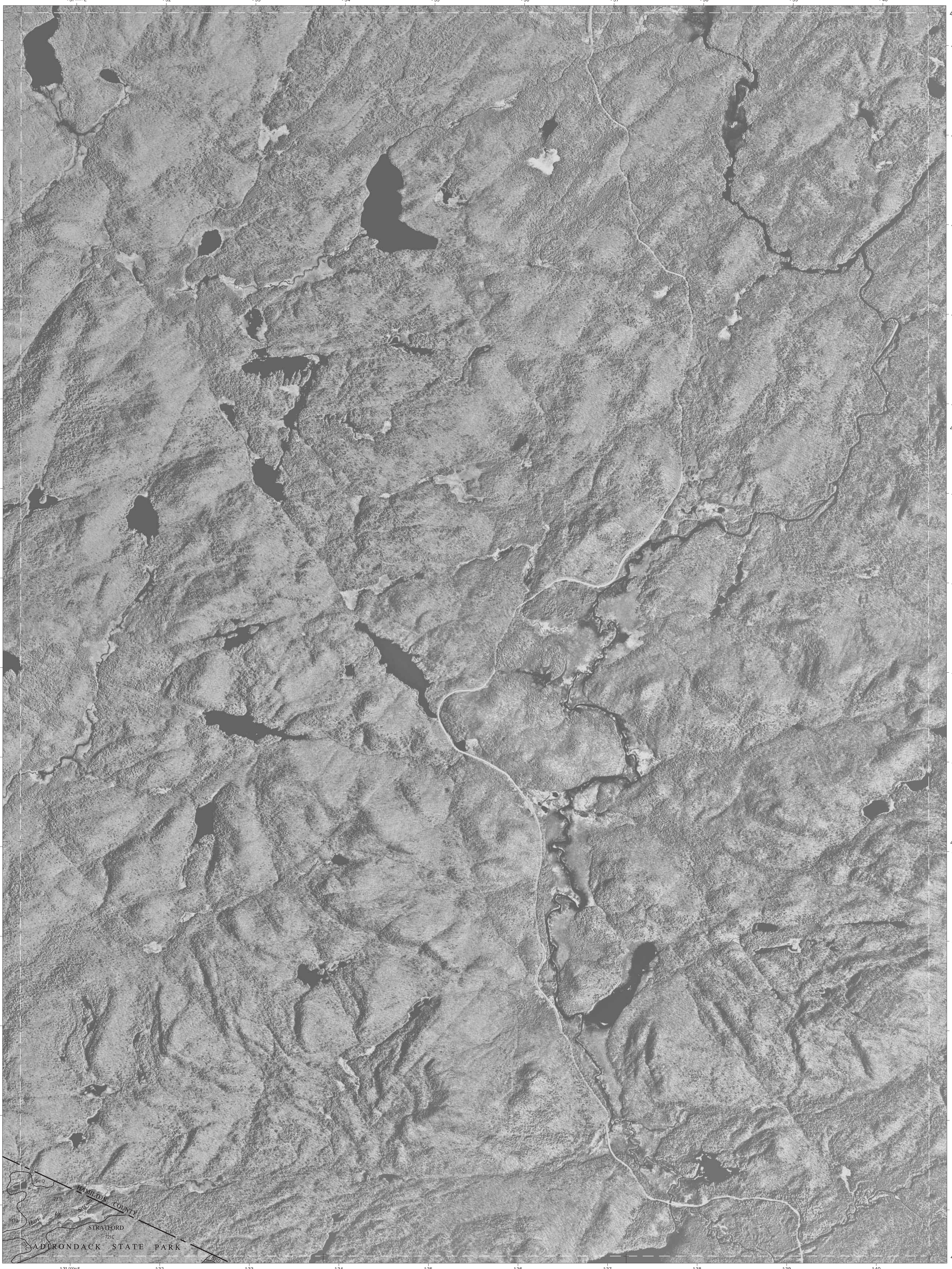
Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

FULTON COUNTY, NEW YORK
TOMANY MOUNTAIN QUADRANGLE
SHEET NUMBER 2 OF 19



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North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

INDEX TO ADJOINING 7.5 MAPS

1 MOREHOUSE LAKE
3 STRATFORD
4 CANADA LAKE
5 CAROGA LAKE

TOMANY MOUNTAIN, NEW YORK

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Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

FULTON COUNTY, NEW YORK
STRATFORD QUADRANGLE
SHEET NUMBER 3 OF 19

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1995-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

	1	2
		4
8	9	10

1 MOREHOUSE LAKE
2 TOMANY MOUNTAIN
4 CANADA LAKE
8 LITTLE FALLS
9 OPPENHEIM
10 LASSELLSVILLE

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STRATFORD, NEW YORK
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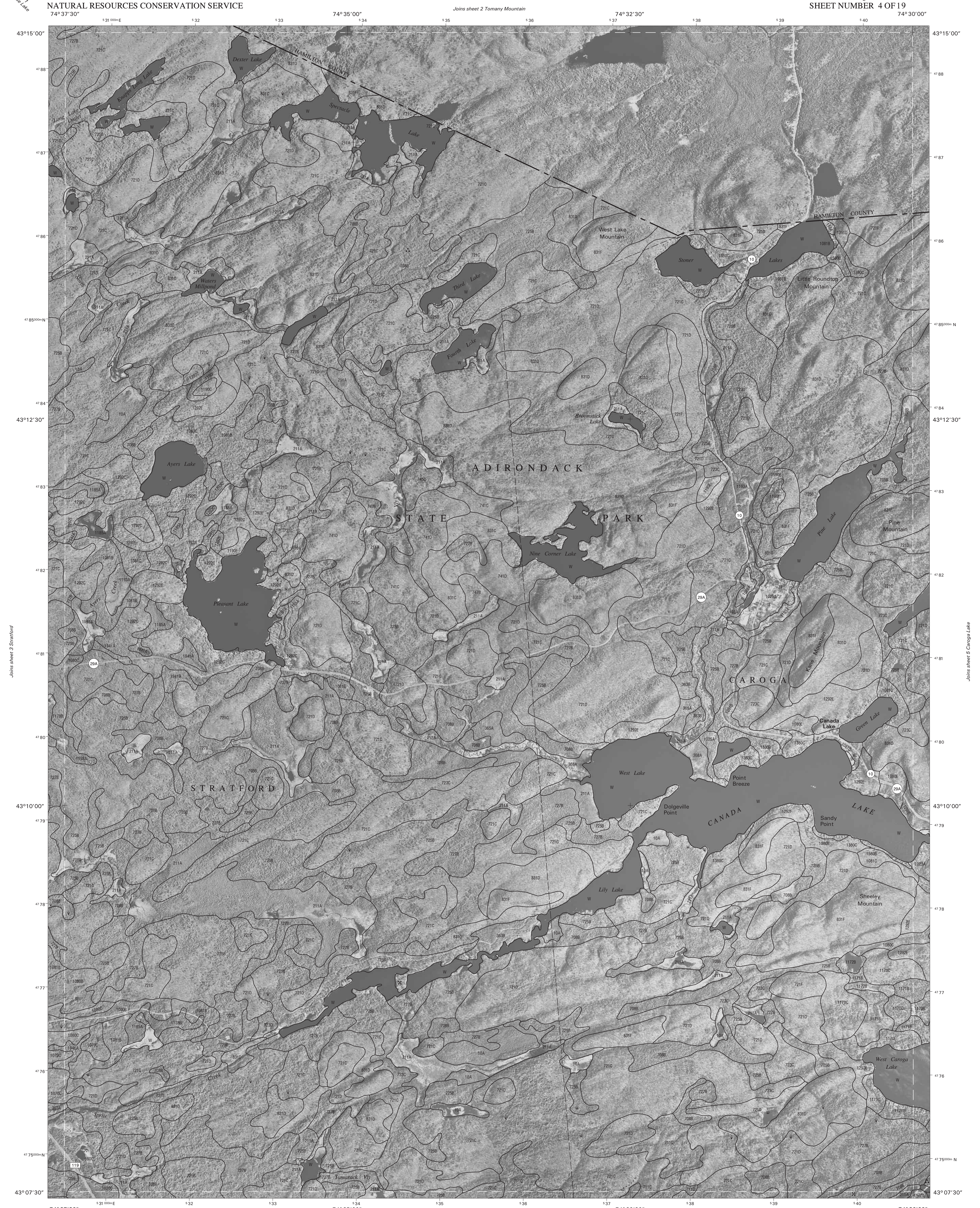
Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

FULTON COUNTY, NEW YORK
CANADA LAKE QUADRANGLE
SHEET NUMBER 4 OF 19



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NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

1	2	
3		5
9	10	11

1 MOREHOUSE LAKE
2 TOMANY MOUNTAIN
3 STRATFORD
5 CAROGA LAKE
9 OPPENHEIM
10 LASSELLSVILLE
11 PECK LAKE

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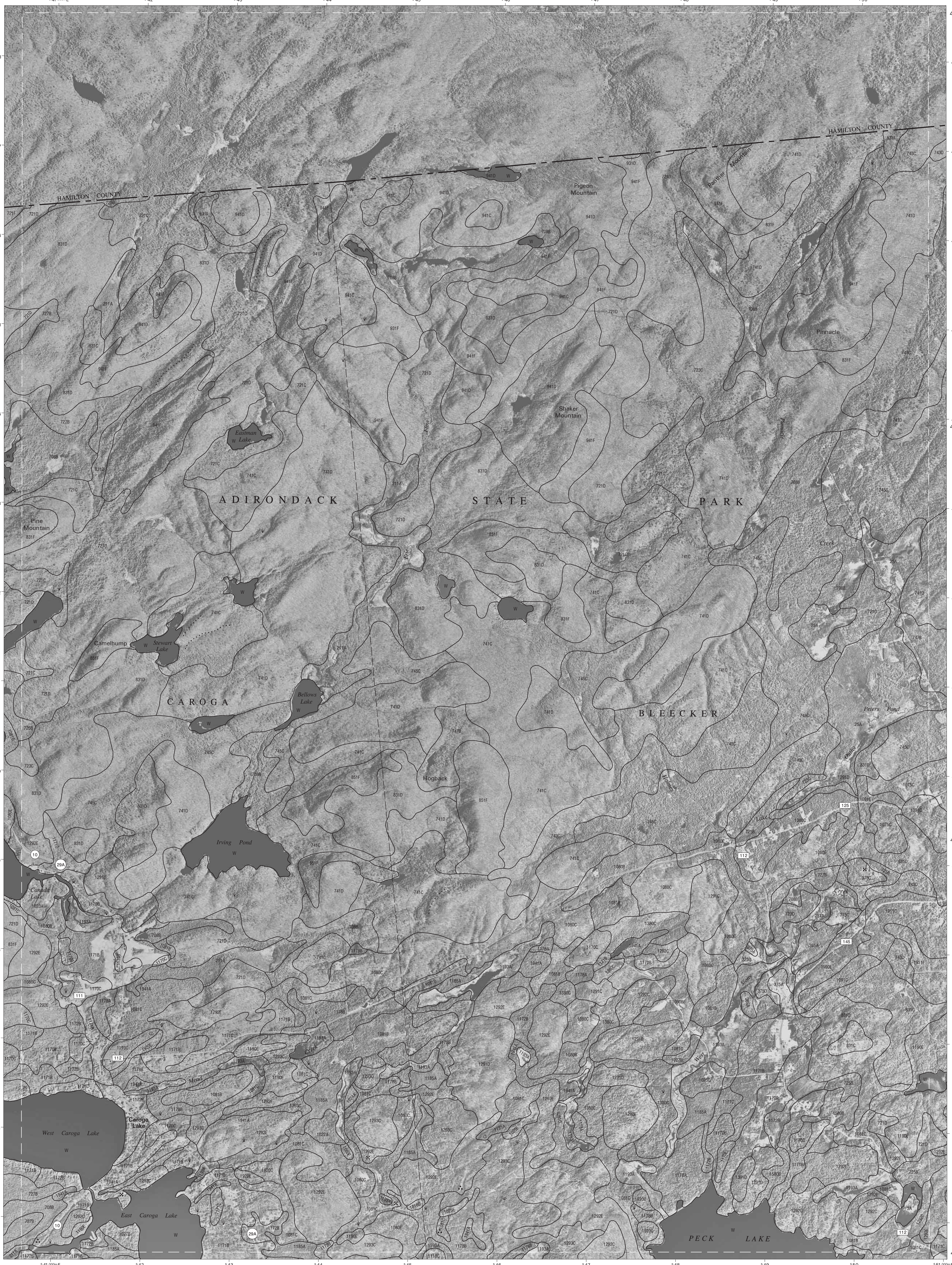
Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

FULTON COUNTY, NEW YORK
CAROGA LAKE QUADRANGLE
SHEET NUMBER 5 OF 19

Joins sheet 2 Tomany Mountain



Joins sheet 10 Lassellsville

Joins sheet 12 Gloversville

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NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

2			2 TOMANY MOUNTAIN
4		6	4 CANADA LAKE 6 JACKSON SUMMIT 10 LASSELLSVILLE 11 PECK LAKE 12 GLOVERSVILLE
10	11	12	

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CAROGA LAKE, NEW YORK
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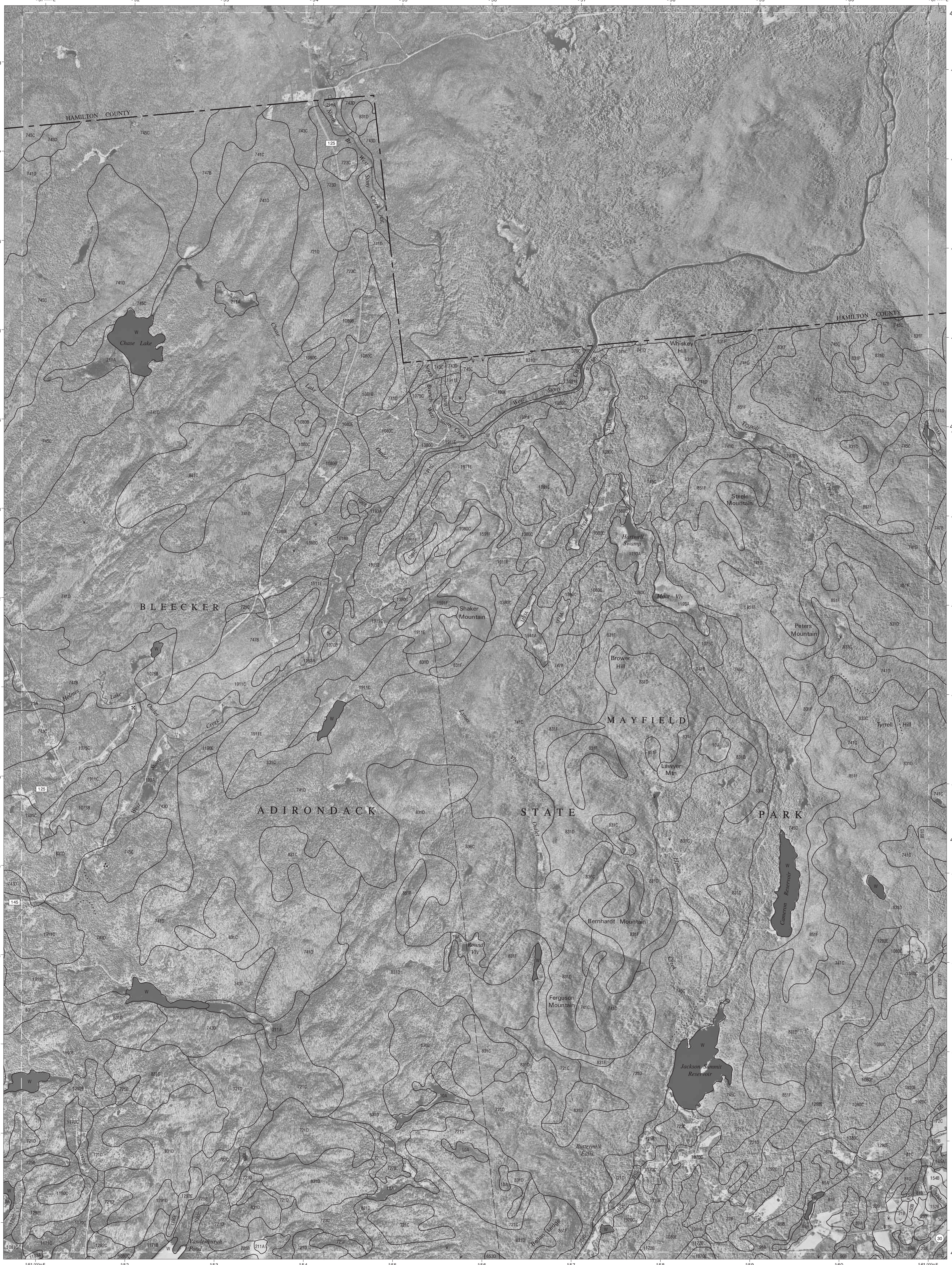
Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.



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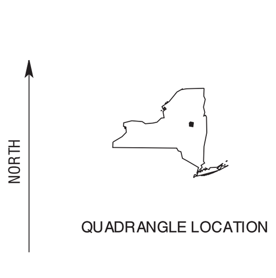

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

5		7
11	12	13

5 CAROGA LAKE
7 NORTHVILLE
11 PECK LAKE
12 GLOVERSVILLE
13 BROADALBIN

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JACKSON SUMMIT, NEW YORK

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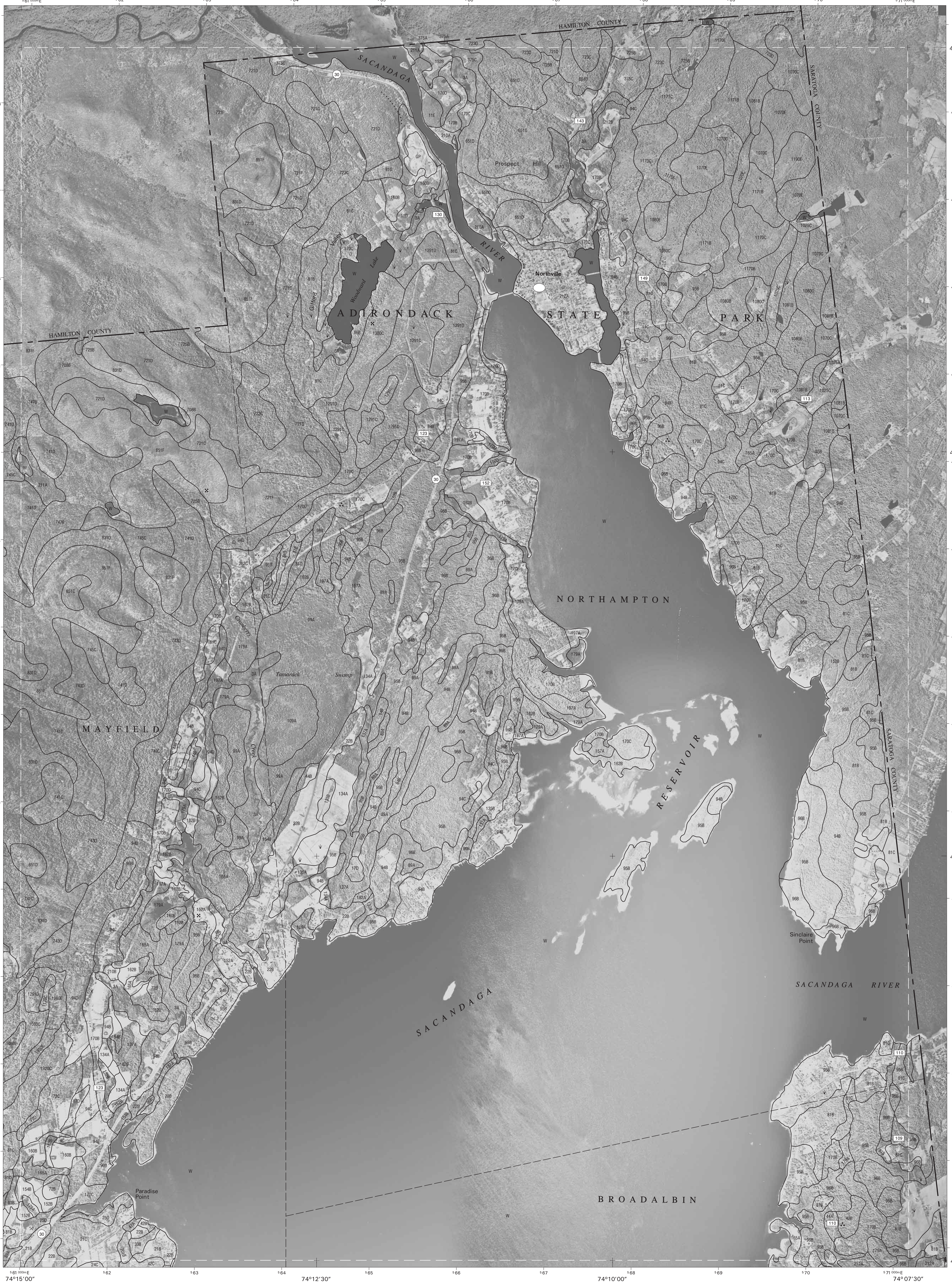
Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

FULTON COUNTY, NEW YORK
NORTHVILLE QUADRANGLE
SHEET NUMBER 7 OF 19



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North American Datum of 1983(NAD83). GRS80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 18. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

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6 JACKSON SUMMIT
12 GLOVERSVILLE
13 BROADALBIN
14 GALWAY

NORTHVILLE, NEW YORK

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Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

FULTON COUNTY, NEW YORK
LITTLE FALLS QUADRANGLE
SHEET NUMBER 8 OF 19

Joins sheet 3
Stratford

Joins sheet 9 Oppenheim

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies. Base maps are orthophotographs prepared by the U.S. Department of the Interior, Geological Survey, from 1995-1999 aerial photography. Administrative boundaries were acquired from the State of New York. Boundaries may have been edited to conform with features represented on the publication orthophotography or to enhance the clarity of the soils information.

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NORTH

QUADRANGLE LOCATION

SCALE 1:24000

1 0 1
MILES

1000 0 1000 2000 3000 4000 5000 6000 7000
FEET

1 0 1
KILOMETERS

		3
	■	9

3 STRATFORD
9 OPPENHEIM

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LITTLE FALLS, NEW YORK
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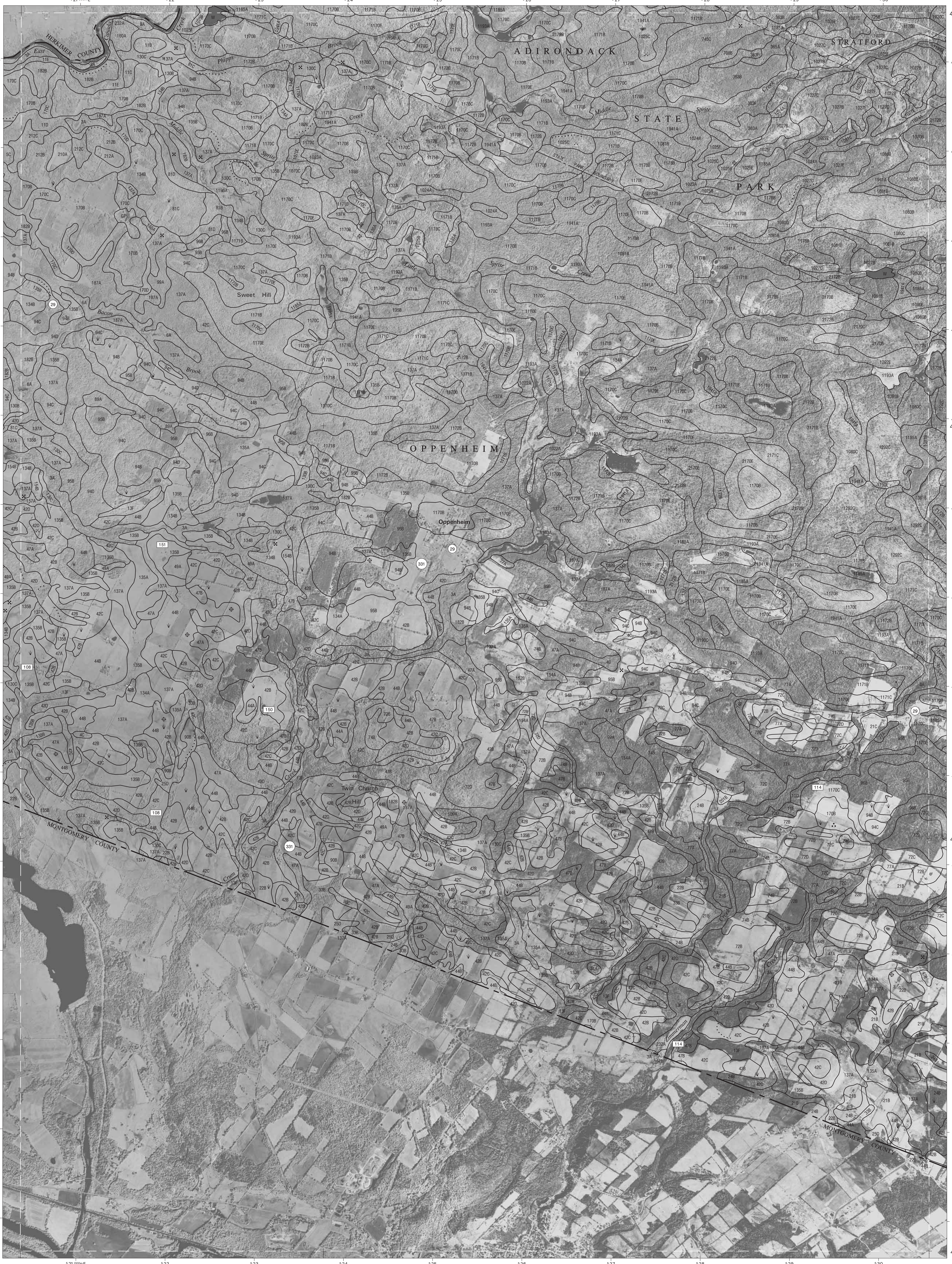
Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

FULTON COUNTY, NEW YORK
OPPENHEIM QUADRANGLE
SHEET NUMBER 9 OF 19

Joins sheet 4 Canada Lake

Joins sheet 3 Stratford



Joins sheet 8 Little Falls

Joins sheet 10 Lassellsville

Joins sheet 15 Canajoharie

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NORTH

QUADRANGLE LOCATION

SCALE 1:24000

MILES

FEET

KILOMETERS

INDEX TO ADJOINING 7.5 MAPS

3 STRATFORD
4 CANADA LAKE
8 LITTLE FALLS
10 LASSELLSVILLE
15 CANAJOHARIE

OPPENHEIM, NEW YORK

7.5 MINUTE SERIES
SHEET NUMBER 9 OF 19

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.